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**TOP MANAGEMENT TEAM CHARACTERISTICS AND
FINANCIAL REPORTING QUALITY**

A Dissertation

Presented to

The Faculty of the C.T. Bauer College of Business

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Philosophy

By

Dan Zhang

June, 2017

**TOP MANAGEMENT TEAM CHARACTERISTICS AND
FINANCIAL REPORTING QUALITY**

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ABSTRACT

The accounting literature often views managers as individuals whose financial reporting decisions are determined by their economic incentives and individual characteristics. However, managers typically work in a team and most decisions have at least some input from other members of the team. This study examines the impact of top management team (TMT) characteristics on financial reporting quality, as proxied by accounting restatements and both accrual and real earnings management. The results indicate that firms with TMTs that have more similar backgrounds and longer experience working together are more likely to misreport their financial statements. Additional tests document that these firms also engage in more accrual and real earnings management when they face income-increasing earnings management incentives. Moreover, the impact of TMTs on financial reporting quality varies with board composition. TMT shared experience and homogeneity are more positively related to restatements for firms with lower percentage of independent directors and longer-tenured audit committee members. These findings indicate that top management team characteristics are important determinants of firms' financial reporting quality.

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CHAPTER 1

INTRODUCTION

When assessing the role of managers on firms' financial reporting quality, the accounting literature usually focuses on the CEO or CFO. Several studies have examined how economic incentives faced by CEOs and CFOs, including both explicit (compensation) and implicit (reputation and career concerns) incentives, affect firms' reporting choices (Ali and Zhang 2015; Bergstresser and Philippon 2006; Cheng and Warfield 2005; Jiang, Petroni, and Wang 2010; McAnally, Srivastava, and Weaver 2008; Pourciau 1993). However, managers may not always make economically rational decisions because they possess limited information and must act in the social context within the firm (March and Simon 1958; Cyert and March 1963). Each manager works with other members of the team and few, if any, decisions are made by only one individual. In addition to the economic incentives faced by each individual manager, the characteristics of the top management team (TMT), which shape the firms' internal environment and decision-making process, may also have implications for firms' financial reporting choices. This study examines how TMT characteristics relate to firms' financial reporting quality, with a focus on the conformity with Generally Accepted Accounting Principles (GAAP), or in other words, the accuracy of the financial statements.

Upper echelon theory, developed by Hambrick and Mason (1984), views the organization as a reflection of its top managers. Top executives' cognitions, values, and perceptions are believed to have significant influence on the firm (Carpenter, Geletkanycz, and Sanders 2004). Organization researchers use observable characteristics of managers such as tenure, education, and functional background as proxies for the unobservable psychological constructs that shape managers' interpretations and reactions to different situations. Numerous empirical studies demonstrate the impact of these observable TMT characteristics on firm performance and strategic choices such as innovation, international diversification, and response to competitors' initiatives (Simons, Pelled, and Smith 1999; West and Anderson 1996; Tihanyi, Ellstrand, Daily, and Dalton 2000; Hambrick, Cho, and Chen 1996).

Although widely studied in the management, psychology, and economics literatures, TMT characteristics have been overlooked in the accounting literature. Recently, a few studies have linked the demographics of the manager, such as age, gender, and religion, with firms' financial reporting quality (Barua, Davidson, Rama, and Thiruvadi 2010; Francis, Hasan, Park, and Wu 2014; Huang, Rose-Green, and Lee 2012; McGuire, Omer, and Sharp 2012). However, most of these studies only examine the characteristics of a single important individual, either the CEO or the CFO, and overlook team related issues. This approach differs from that of management researchers who believe "the characteristics and functioning of the top management team have far greater potential for predicting organizational outcomes than do the characteristics of the CEO" (Hambrick et al. 1996). This study attempts to fill this void in the accounting literature by examining the role of TMT in firms' accounting practices.

I focus on two central constructs in the literature on TMT, team homogeneity and shared working experience. Homogeneous TMTs have similar perspectives and preferences, reinforcing consensus and conformity within the team (O'Reilly, Caldwell, and Barnett 1989; Priem 1990). Longer shared working experience enhances social integration and communication (Smith, Smith, Olian, Sims, O'Bannon, and Scully 1994). Similar backgrounds and longer shared experience are likely to foster groupthink, which is defined as "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members striving for unanimity override their motivation to realistically appraise alternative courses of action" (Janis 1972). Groupthink may prevent managers from discovering errors or irregularities in financial statements. What's worse, high social integration may foster collusion in earnings management and even fraud.

I define TMT as all the managers disclosed as executive officers in the 10-K. I hand collect the information on managers of S&P 500 firms (excluding firms in the financial and regulated industries) from BoardEx, as well as 10-Ks, proxy statements, and company websites. I construct a composite measure of TMT homogeneity using the managers' education level, functional background, and time of entry. I measure shared working experience using the averaged pair-wise overlap in the number of years that the managers have worked in the TMT. I use restatements collected from AuditAnalytics to measure firms' financial reporting quality. If a given year's financial reports, including both 10-Q and 10-K, are misreported and subsequently

restated due to accounting errors, I consider financial reporting quality to be low for that firm-year.¹

Using a sample of 2,658 firm-year observations from 2006 to 2013, I find that TMTs with homogeneous background and long shared experience are more likely to misstate their financial reports. Additional tests show that the results are mainly driven by more severe restatements with SEC (Board) investigations or class action lawsuits, restatements that affect the bottom line earnings or stockholders' equity, and restatements with negative announcement stock returns. In addition, these TMTs also report higher abnormal accruals, higher abnormal production costs, and lower abnormal discretionary expenditures when facing income-increasing earnings management incentives. Overall, the results indicate that TMT homogeneity and shared working experience are important determinants of firms' financial reporting quality.

I also examine cross-sectional variations with respect to board characteristics. More independent directors alleviate the adverse impact of having TMTs with similar background and long shared experience, while long-tenured audit committees exacerbate the adverse impact. Possible explanations for the results are that independent board members introduce new perspectives which alleviate groupthink and collusion, while long-tenured audit committees reduce the monitoring effectiveness as committee members become "friends" of the managers over time.

¹ There may be firms with misstated financial statements that are not discovered yet. However, it is difficult to identify those firms. As a result, I use the misstatements that have been discovered and corrected, i.e. restatements, to measure financial reporting quality. I use the terms "misstatements" and "restatements" interchangeably in the rest of the dissertation.

This study contributes to the literature in several ways. First, it adds to the literature on the determinants of financial reporting quality by identifying two important factors, TMT homogeneity and shared working experience, that have implications for financial reporting quality. It shows that managers' reporting decisions are affected not only by the economic incentives that have been widely documented in the prior literature, but also by managers' backgrounds which shape their values and perceptions, and hence their judgments and actions. Second, this study introduces new perspectives in the accounting research on managerial impact. It shows that team dynamics may have significant impact on managerial decisions. Focusing only on the individual effect of the CEO or the CFO depicts an incomplete picture of the functioning of managers within the firm. Exploring the impact of interactions and group processes within the management team or other teams such as the board can be a fruitful research area of research in accounting. Finally, this study contributes to the literature on corporate governance by documenting the financial reporting consequence when boards with different compositions interact with TMTs. The findings are relevant for investors and corporate governance researchers when considering the impact of the boards and management teams.

The remainder of the dissertation is organized as follows. I review the literature in Chapter 2, develop the hypotheses in Chapter 3, present the sample selection and research design in Chapter 4, report the results in Chapter 5, discuss several additional tests in Chapter 6, and conclude the study in Chapter 7.

CHAPTER 2

RELATED LITERATURE

In this chapter, I review the related literature. Section 2.1 discusses the accounting literature about the managers' impact on firms' financial reporting quality. Section 2.2 introduces the management literature on top management teams. Section 2.3 talks about several recent studies that shed some light on the relation between top management teams and financial reporting quality.

2.1 Managers' Impact on Financial Reporting Quality

There is voluminous research about managers' impact on firms' financial reporting quality. Most studies focus on the effect of economic incentives faced by managers. Prior literature documents significant relations between different measures of financial reporting quality and earnings-based compensation such as bonus plans and equity-based compensation such as stock options (Healy 1985; Bergstresser and Philippon 2006; Baker, Collins, and Reitenga 2003; Armstrong, Jagolinzer, and Larcker 2010). In addition to these explicit economic incentives, researchers also document the impact of implicit economic incentives such as career concerns. For example, Ali and Zhang (2015) find that new CEOs try to favorably influence the market's perception of their ability and tend to report higher discretionary accruals.

Apart from economic incentives, recent accounting studies have started to explore the impact of demographic characteristics of individual managers. Instead of treating decision making as a fully rational process of finding the optimal choice, bounded rationality, proposed by Simon (1957), views decision making as a search process of seeking a satisfactory solution given the information and cognitive limitations of the decision maker (Gigerenzer and Selten 2002). Under bounded rationality, there is a role for managerial characteristics such as age, gender, education, and working experience in determining organization outcomes, because these characteristics may affect the cognitive perceptions, values, and information sets of managers and, hence, their decisions.

Demography theory has significant impact on the study of organizations. Pfeffer (1983) suggests that “demography is an important, causal variable that affects a number of intervening variables and processes and, through them, a number of organizational outcomes”. However, the implication of managerial demographics is under-researched in the accounting literature. Several recent accounting papers try to link firms’ financial reporting quality with demographic characteristics of the CEO or CFO. Using a sample of 359 CFOs who have served at least two companies, Ge, Matsumoto, and Zhang (2011) find significant CFO fixed effects for several accounting choices such as discretionary accruals and earnings smoothness. Other studies document a relation between financial reporting quality and observable managerial characteristics, including gender and age. Francis et al. (2014) find that female CFOs exhibit higher accounting conservatism than male CFOs. Barua et al. (2010) show that female CFOs are associated with higher accrual quality. Huang et

al. (2012) find that CEO age is negatively associated with just meeting analyst forecasts and with financial restatements. McGuire et al. (2012) find that religion affects managers' financial reporting decisions. Although they do not directly measure the religious beliefs of managers, they show that firms headquartered in areas with strong religious social norms are less likely to engage in financial reporting irregularities such as accounting related shareholder lawsuits and accounting restatements.

The literature tends to focus on one important individual, either the CEO or the CFO. Part of the reason may be that, following the Sarbanes-Oxley Act of 2002, the CEO and the CFO are required to certify the financial statements and may face criminal sentences for falsifying the statements. Thus, the CEO and the CFO are viewed as the two individuals who have the most impact on a firm's financial reports. However, the CEO and the CFO do not make decisions by themselves. Instead, they cooperate with each other and with other members of the top management team. For instance, a more powerful CEO can pressure the CFO to manipulate financial reports (Feng, Ge, Luo, and Shevlin 2011; Friedman 2014). Another emerging literature explores the social networks or social ties of the CEO and/or the CFO. It documents that when the CEO or the CFO have more social ties with board members, they are more likely to manage earnings (Krishnan, Raman, Yang, and Yu 2011; Hwang and Kim 2012). Although accounting researchers recognize that financial reporting decisions are not individual decisions made by the CEO, they seldom consider the top management team as the unit of analysis. Little is known

about how the interplay or the characteristics of the top executives as a team affect financial reporting decisions.

2.2 Organization Research and Top Management Team Characteristics

Behavioral theory of the firm states that managers must act in the social context of conflicting goals within their firm (March and Simon 1958). The level of analysis in the organizational leadership studies shifted from individual CEOs to the entire team of top managers following the introduction of the dominant coalition concept by Cyert and March (1963). In large and complex firms, managerial decision making is unlikely to be the exclusive domain of a single individual (Drucker 1974). Many organization researchers believe that TMTs, the “dominant coalition” of individuals responsible for policy making at the firm, have far greater potential for predicting organizational outcomes than CEOs alone (Wiersema and Bantel 1992; Hambrick et al. 1996).

The seminal work by Hambrick and Mason (1984) combines the dominant coalition concept and demography theory to develop upper echelon theory, which “views an organization as a reflection of its top managers and centers on the influence of executive cognitions, values, and perceptions on the process of strategic choice and resultant performance outcomes” (Carpenter et al. 2004). Due to the difficulties in measuring the psychological constructs, Hambrick and Mason suggest using observable managerial characteristics as proxies. Upper echelon theory has received much attention and inspired organization researchers to conduct many studies about the impact of TMT characteristics. Empirical evidence suggests that TMT characteristics

consistently predict organizational outcomes better than do CEO characteristics (Hambrick 1994).

This rich literature documents that the central tendency of TMT traits, such as age, tenure, education, and functional background, and the homogeneity in these traits significantly affect organization performance and strategies (see the reviews by Finkelstein, Hambrick, and Cannella 2009 and Carpenter et al. 2004). The variables of interest in my study, team tenure and team homogeneity are two central constructs examined in the literature. This literature finds that firms with longer team tenure are less innovative and follow more persistent strategies that conform to the industry norm (Bantel and Jackson 1989; Finkelstein and Hambrick 1990; Kor 2006), whereas firms with heterogeneous teams are more innovative, more likely to take competitive actions, and are associated with greater levels of international operations (Bantel and Jackson 1989; Hambrick et al 1996; Carpenter and Fredrickson 2001; Tihanyi et al. 2000). The effect of team tenure and team homogeneity on a firm's overall performance is mixed, with the relation depending on group processes and the external environment (Smith et al. 1994; Keck 1997; Carpenter 2002; Kilduff, Angelmar, and Mehra 2000)

2.3 Top Management Team and Financial Reporting Decisions

The above evidence in the management literature suggests a strong link between TMT characteristics and organizational decisions. Therefore, although the CEO and CFO may have the most significant impact, other members of the TMT may also play an important role in firms' financial reporting decisions. Moreover,

even though the CEO and CFO may have the final say, their personal actions could be affected not only by their individual characteristics but also by the social context within which they make the decision. Acharya, Myers, and Rajan (2011) develop a model of internal governance of firms in which the actions of firms' CEOs are limited by their subordinates in addition to the external governance by investors. Because CEOs need to motivate effort from subordinate managers, the CEO's action will be affected by the preferences and goals of the other top executives.

Two recent papers are closely related to my study. Cheng, Lee, and Shevlin (2016) examine the relation between internal governance and real earnings management. They find that firms engage in less real earnings management when key subordinate executives have longer horizon measured by the number of years to retirement age, and stronger relative influence in the firm measured by their compensation relative to the CEO's. While Cheng et al. (2016) examine how internal governance affects firms' myopic operating decisions such as overproduction and reduction in discretionary expenditure, my study focuses more on accounting issues such as GAAP violations. In addition, Cheng et al. (2016) study whether the subordinate executives' incentives (measured by their horizon) and ability (measured by their relative power at the firm) to monitor the CEO have implications for the effectiveness of the internal governance. My study, in contrast, explores how the social environment within the management team, measured by the length of time working together and background similarity, affects managers' behavior.

Another paper by Khanna, Kim, and Lu (2015) examines how social connectedness between the CEO and other top managers and directors affects

corporate fraud. They find that appointment-based CEO connectedness measured by the percentage of top five executives hired or promoted during the CEO's tenure is positively associated with corporate fraud, while prior network connections based on past employment, education, or social organization memberships do not have a significant impact on fraud. Khanna et al. (2015) argue that a CEO's "soft" influence is strengthened by his internal connections. Other top executives or directors are more likely to coordinate with the CEO and are less willing to "blow the whistle" if they are hired or promoted by the CEO. In contrast, prior network ties are associated with a weaker sense of loyalty and hence will not facilitate wrongdoings of the CEO.

My findings differ from those in Khanna et al. (2015). Homogeneity in past education and working experiences of the top managers is positively associated with accounting-related restatements and accrual and real earnings management. The different results may be driven by the following two reasons. First, the two papers measure different aspects of team diversity. According to Harrison and Klein (2007), variety and separation are two distinctive types of diversity. Variety refers to differences in "kind, source, or category of relevant knowledge or experience among team members" while separation speaks more to "disagreement or opposition in positions or opinions" (Harrison and Klein, 2007). My paper assesses the diversity of TMTs in terms of the variety of education, career tracks, and time of entry into the firm, while Khanna et al. (2015) examines the interpersonal connection within the TMT using affiliations with the same school, firm, or social organizations, which fits more into the concept of separation. Second, Khanna et al. (2015) examine corporate fraud which include severe intentional accounting manipulations and non-accounting fraud involving

misappropriation of firm assets. My paper studies the impact on firms' overall financial reporting quality. Fraud cases are rare, occurring only 10 times (0.4%) in my sample of S&P 500 firms from 2006 to 2013. As a result, I do not restrict my analysis to these most extreme cases. I examine all the accounting related restatements which may or may not be alleged as fraud as well as accrual and real earnings management. Although similarities in past education and working experiences may not create strong loyalty to the CEO that facilitates severe wrongdoings such as fraud, they may foster groupthink that increases unintentional accounting errors and strengthen coordination and trust that facilitate collusion in intentional earnings management.

Another important distinction between my study and the previous two studies examining the impact of internal governance (Cheng et al. 2016; Khanna et al. 2015) is that they focus on the monitoring of subordinate executives for the CEO. The theoretical arguments and empirical measures essentially assume a top-down approach to decision-making within the firm, i.e., the CEO makes the decision and the subordinate executives respond to that decision. However, financial reporting decisions do not necessarily follow a top-down process. A bottom-up process may also exist. For example, divisional CEOs or CFOs may be involved in unintentional accounting errors or intentional earnings management, which affects the quality of financial statements; CEO and CFO as well as other members in the corporate accounting department may monitor the behavior of divisional managers. As a result, I do not consider the CEO as the center of analysis but assume that each member of the TMT cross monitors the others and use the entire TMT as the unit of analysis.

The literature review suggests that viewing firms' financial reporting

outcome as a team decision rather than a decision made by a key individual may depict a more complete picture of the functioning of managers and help us gain additional insight into the determinants of firms' financial reporting quality.

CHAPTER 3

DEVELOPMENT OF HYPOTHESES

The quality of firms' financial statements is affected by the quality of data reported by each division or unit within the firm and the decisions made by the corporate accounting department when consolidating the accounting data (Healy and Wahlen 1999; Kothari 2001). Figure 1 depicts how top managers relate to the financial reporting process. Each divisional head reports the financial data of the business unit, region, or function to the corporate accounting department. The controller and treasurer create the consolidated report, which combines the information from each unit and incorporates necessary estimations from the tax director about tax-related accruals and from the general counsel about legal and other contingent liabilities, subject to the monitoring of the internal auditor. The consolidated financial statement is reported to the CFO and CEO who may decide to adjust the reported accounting numbers. Unintentional and intentional errors may occur at every level of the financial reporting process. Each top executive directly involved in the financial reporting process may cross monitor the others for unintentional and intentional reporting errors.

Other top executives such as the Chief Operating Officer, Chief Strategy Officer, and Chief Technology Officer, who are less closely related to the financial reporting process, may also help monitor this process as they may obtain information

from colleagues through informal communications. In addition, they may affect the behavior of executives closely involved in the financial reporting process indirectly through their impact on the organizational culture and social environment within the TMT.

[Insert Figure 1 About Here]

Team homogeneity and shared working experience may affect the social practices and working processes within the TMT (Carroll and Harrison 1998), which likely have an impact on the internal checks and balances and the monitoring effectiveness for both unintentional and intentional errors in the financial reporting process.

3.1 Team Homogeneity

TMT background distribution is considered a strong determinant for interpersonal attraction, cognitive diversity, and social interactions within the firm (Jackson, Brett, Sessa, Cooper, Julin, and Peyronnin 1991). Studies on work group diversity describe two main processes through which diversity may affect team performance. From the information/decision-making perspective, differences in information, knowledge, and preferences of team members may induce more complete information use in team decisions (Knippenberg and Shippers 2007). Diverse teams are related to more thorough environmental scanning and information processing, and better problem-solving skills (Keck 1997; Bantel and Jackson 1989; Hoffman and

Maier 1961). In addition, divergent views may also stimulate task conflicts and careful consideration of the functioning of the team, so the team is less likely to move to premature consensus and can quickly learn from past experiences and take corrective actions (Schippers, Den Hartog, and Koopman 2007; Jehn, Northcraft, and Neale 1999). As a result, having a homogeneous TMT may be detrimental to reporting quality especially in today's complex and fast-changing business environment. The narrow views may prevent the managers from making appropriate accounting estimates and developing an effective internal control system that ensures proper gathering, processing, and synthesis of accounting data.

Another perspective relies on the social categorization process or similarity attraction theory (Williams and O'Reilly, 1998), which argues that differences among people will elicit classification of others as either similar or dissimilar and formation of subgroups. Background similarity promotes cohesion, social integration, and consensus in a group (Lott and Lott 1965; O'Reilly et al. 1989; Knight, Pearce, Smith, Olian, Sims, Smith, and Flood 1999; Priem 1990). As a result, a homogenous TMT provides more opportunity for collusion in intentional earnings management and even fraud. In addition, members in a homogeneous TMT may have stronger desire to maintain good relations and higher pressure to conform to group goals and norms (Daboub, Rasheed, Priem, and Gray 1995; O'Reilly et al. 1989; Hackman 1976). Lower resistance from other managers for the earnings management behavior may also facilitate the rationalization of such behavior.

Although the above arguments predict a negative relation, there are some arguments that suggest a positive relation between financial reporting quality and

team homogeneity. Homogeneous teams are easier to coordinate as team members may hold similar views that are easier to reconcile (Wagner, Pfeffer, and O'Reilly 1984; Hambrick and Mason 1984; Keck 1997). Homogeneity may reduce team conflicts, enhance within-group communications, and reduce political activities or power struggles (Pfeffer 1983; Wagner et al. 1984; Zenger and Lawrence 1989). These factors may improve team efficiencies (Hambrick et al. 1996). In addition, less political activity and power struggle may reduce the pressure for team members to deliver good performance. Team homogeneity is negatively related to turnover rate of managers (Jackson et al. 1991; Wiersema and Bird 1993). The reduced pressure and career concerns may decrease the incentives for individuals such as the CEO, CFO, or divisional heads to manipulate accounting results. These arguments suggest a positive relation between team homogeneity and financial reporting quality. The above discussion suggests that how TMT homogeneity will affect financial reporting quality is unclear *ex ante*, so I state my first hypothesis in the null form.

Hypothesis 1: Financial reporting quality is not associated with homogeneity of the top management team.

3.2 Shared Team Experiences

While background homogeneity represents the cultural match among the top executives when they first enter the team, shared working experience represents the gradual enculturation of top executives over their service in the team. Teams that have worked together for a long time tend to develop similar thinking and behaving styles (Pfeffer 1983; Tihanyi et al. 2000; Harrison, Price, and Bell 1998).

Such teams are more likely to fall into the trap of groupthink (Janis 1972). Teams suffering from groupthink show symptoms including belief in the correctness of their own group, rationalization of their behaviors, failure to initiate or maintain contact with opposing groups, lack of cooperation with a third party mediator, incomplete information search, and selective information processing (Tetlock 1979; Tetlock, Peterson, McGuire, Chang, and Feld 1992; Hensley and Griffin 1986; Esser 1998; Turner and Pratkanis 1998). Groupthink may reduce the incentives for the top executives directly involved in the financial reporting process to check others' work and prevent them from being critical when judging others' work. Moreover, tones from the top may affect the organization culture and control environment within the firm and the behavior of lower-tier personnel in the financial reporting process. As a result, there is higher risk of unintentional accounting error or misinterpretation of GAAP. In addition, communications and work processes tend to become more routine and less flexible after an extended time of shared experience (Keck 1997; Katz 1982). There could be lower recognition of the need to scan the environment, communicate with outsiders such as auditors, and change behaviors. TMTs may become less timely in adjusting accounting estimations such as goodwill impairment and bad-debt provisions. In addition, routine interactions and processes may reduce the awareness of internal control weaknesses or inappropriate accounting treatments.

Longer shared experience may also foster collusion in intentional earnings management. Intentionally managing the accounting numbers is a risky behavior which could result in reputation loss or even criminal sentences if the misconduct is discovered later. Engaging in such risky activities requires trust and coordination

among the managers, which is unlikely to develop in a new team (Kor 2006). Moreover, although not every member in the team would actively participate in such behavior, longer working relationships could increase passive acquiescence, meaning that members are aware of the improper behavior but are unwilling to take corrective actions (Daboub et al. 1995). Long tenure is shown to limit cognitive conflicts and debates and increase the commitment to the status quo and conformity to the group (Finkelstein and Hambrick 1990; Hambrick and Fukutomi 1991). Managers on a team with longer shared experience may remain silent even if they discover or hear about earnings management activities. In addition, negative consequences of discovered improper financial reporting behavior such as demotion or turnover may be less likely if the top executives are more socially integrated and develop personal friendships. These factors may work together, which will result in more intentional earnings management activities² for TMTs with long shared working experiences.

Similar to the case of team homogeneity, there also exist some counter arguments for shared working experience. First, it takes time for members in a team to learn how to work with each other. Gabarro (1987) suggests that new teams may take up to six months to become productive and productivity increases as team members understand the job well and learn each other's strengths and weaknesses through interactions over time. As a result, a TMT with longer shared experience may be more competent and efficient because its members are more familiar with the

² Intentional earnings management does not necessarily constitute fraud. Accrual estimations often involve judgements from the managers. "Cookie jar" reserves from bad debt expenses or "big bath" activity from impairment losses may not result in fraud allegations, depending on the magnitude and materiality of the earnings management amount. The argument in this study speaks to earnings management in general which may include less severe earnings management activities and more severe ones that may be considered as fraud.

firm and each other. In addition, increased tenure is associated with less conflict and more communication among the group members and more powerful status, which may reduce their incentives to manage earnings (Keck 1997; Smith et al., 1994). These factors suggest a positive relation between shared team experience and reporting quality. Since the relation is not very obvious *ex ante*, this question can only be answered empirically. I state my second hypothesis in the null form.

Hypothesis 2: Financial reporting quality is not associated with the shared working experience of the top management team.

In this study, I view homogeneity and shared team experience as two distinctive aspects of the TMT. Team homogeneity captures the similarity in personal backgrounds and experiences of the top managers, independent of the team. Shared team experience refers to the common historical working experiences of the top managers within the team. It is possible that shared team experience and team homogeneity are related. Team homogeneity may be positively associated with shared team experience as managers keep similar members and remove dissimilar ones from the team over time. According to similarity attraction theory, people are attracted to others who are similar to themselves (Byrne 1971). Managers in an organization may recruit and promote people who share similar backgrounds and attitudes with them, a tendency referred to as homosocial reproduction (Moore 1962). If this is the case, longer shared experience would increase homogeneity within the TMT. In my sample, I find a negative correlation (-0.13) between the two variables,

so I treat shared team experience and team homogeneity as two distinctive dimensions in my analysis.

CHAPTER 4

RESEARCH DESIGN

In this chapter, I discuss the research design used in the study. Section 4.1 presents the sample selection process. Section 4.2 introduces the empirical measures used for financial reporting quality and TMT characteristics. Section 4.3 shows the regression model used to analyze the relation between financial reporting quality and TMT characteristics.

4.1 Sample Selection

I focus on S&P 500 firms because they are large public companies unlikely to be controlled by any single individual such as the CEO or CFO and the TMT may play a more important role. I start with all S&P 500 firms at the end of 2013, excluding financial institutions (SIC 6000-6999) and regulated industries (SIC 4400-4999). I collect information of these firms for all available years from 2006 to 2013. I do not require the firm to exist for the entire sample period, but I delete firms with less than three years of available financial data. The final sample includes 2,658 firm-year observations for 336 firms. Please see Table 1 for the sample selection process and distribution of observations by industry and year. The sample is evenly distributed over the years. However, it is not evenly distributed across industries, with manufacturing firms representing over half of the sample.

[Insert Table 1 About Here]

I define the TMT as all the managers listed as executive officers in the firm's 10-K. All public companies are required to disclose biographical information about their executive officers in Part III of form 10-K according to item 401 of regulation S-K. Executive officers³ are defined as a company's president, vice president in charge of a principal business unit, division or function, and any other officer who performs a policy-making function according to Rule 3b-7 of the Exchange Act.

I hand collect the information about each manager's past education and working experiences from the disclosed biographical information in the 10-K, proxy statement, company website, and BoardEx. In my sample, over 90% of the firms have between 5 and 16 executive officers, with the median being 9. Table 2 reports the descriptive statistics for the collected information related to the TMT. Panel A of Table 2 shows the frequency of disclosed executive titles. The executives that are usually disclosed in the 10-K include CEO, CFO, General Counsel, Divisional Head, VP-Human Resource, Controller, and COO. Panels B, C, and D of Table 2 report the distribution of managers based on the highest degree obtained, past career tracks, and

³ An executive officer differs from a named executive officer, whose compensation is required to be disclosed in the proxy statement under item 402 of Regulation S-K. Named executive officers include the CEO, CFO, and three other most highly compensated individuals. I do not use this definition for the top management team because the five highest compensated individuals may include individuals who have left the firm in the current year. Moreover, this definition often excludes officers such as the controller, treasurer, and divisional head, who are closely related to the financial reporting function but do not receive very high compensation.

years of service with the firm, respectively. The highest education for most of the managers is the bachelor's degree (38%) or Master's degree (42%). The most common past career tracks are finance and accounting (26%) and general management (23%). The majority of managers have worked with the firm for less than 10 years (43%) or between 11 to 20 years (27%).

[Insert Table 2 About Here]

4.2 Empirical Measures

Financial reporting quality may contain different dimensions. According to the conceptual framework, qualitative characteristics of decision-useful information include relevance, faithful representation, comparability, verifiability, timeliness, and understandability (Financial Accounting Standards Board, 2010). Since FASB considers these dimensions when setting the standards, violations of GAAP represent deviations from the balanced criteria set by the standard setters. I use restatements, collected from the non-reliance restatement database in AuditAnalytics, as a proxy for overall financial reporting quality because restatements unambiguously reflect violations of GAAP and are not affected by specification and measurement errors of discretionary accrual models (Dechow, Ge, and Schrand 2010). I create an indicator variable *Restate*, which equals one if the firm's 10-Q or 10-K during a fiscal year is misreported and subsequently restated due to accounting errors, and zero otherwise. Restatements are collected from AuditAnalytics on December 31, 2016, so I allow at least three years for the misstatement to be discovered.

It is difficult to distinguish unintentional errors from intentional errors when using restatements. However, this disadvantage does not prevent the use of restatements as a measure of overall reporting quality because even though a misstatement is unintentional, the error may reflect poor internal control systems⁴ governing the firms' financial reporting processes, which may result from insufficient managerial effort or ability. Nevertheless, to shed some light on the type of errors that the TMT characteristics affect, I classify restatements into different categories. First, a restatement is classified as an irregularity (*Restate_Irr*) if it is identified as fraud in AuditAnalytics or results in SEC (board) investigation or class action lawsuits, and classified as an error (*Restate_NonIrr*) otherwise. The second criterion is whether the restatement affects the bottom line earnings or equity. A restatement is classified as *Restate_BL* if it leads to changes in net income or shareholders' equity, and classified as *Restate_NonBL* otherwise. The third criterion is based on the restatement announcement stock return. A restatement is classified as *Restate_Negret* if the seven-day (-1, 5) cumulative abnormal return⁵ is negative around the restatement announcement date, and classified as *Restate_Posret* otherwise.

Table 3 reports descriptive statistics for restatements. Panel A of Table 3 shows the distribution of the 336 sample firms by the number of restatements (or restated

⁴ Disclosure of material weaknesses in internal control is rare for S&P 500 firms. I observe only 35 cases of Section 302 and Section 404 internal control weaknesses in my sample. Given the small number of internal control weaknesses in my sample, I do not report tests on internal control weakness. Using an indicator variable for reporting internal control weakness (*ICW*) as the dependent variable, untabulated results show that TMT homogeneity and shared experience are both positively related to *ICW* (significant at less than 1% and 10%, respectively).

⁵ Results are qualitatively similar if a three-day (-1, 1) or five-day (-2, 2) window is used to calculate the cumulative abnormal return.

years). 212 (63%) firms do not have restatements during the sample period, 78 (23%) firms have one restatement, and 46 (14%) firms have more than one restatement. In terms of the number of years affected by those restatements, 50 (15%) firms have only one restated year, while 74 (22%) firms have more than one restated year. Panel B of Table 3 reports the distribution of restatements by the primary reason for the restatement. There are a total of 193 restatements covering 352 firm-years for the sample firms from 2006 to 2013. Errors in the cash flow statement and tax-related accruals are most frequent with each representing one fifth of all restatements. Panel C of Table 3 reports the frequency of restatement by year. There is an increasing trend of restatements for the sample firms, with restatement frequency increasing from 7% in 2006 to 16% in 2013. However, the increase is mainly driven by less severe misstatements. Reporting irregularity (*Restate_Irr*) is relatively stable across years at around 2% with the exception of the year 2006 when the frequency of irregularity is 4.6%.

[Insert Table 3 About Here]

I follow Carroll and Harrison (1998) and create the variable *Team_SharedExp* using the averaged pair-wise overlap in the tenure of the top managers.⁶

⁶ An alternative measure for shared team experience is the average team tenure. However, average team tenure is a noisy measure for shared working experience because it is affected by the standard deviation of team tenure. For example, an average team tenure of 5 years may result from a team where all members work in the team for five years. It may also come from a team where one member works in the team for 0 years and the other works in the team for 10 years, in which case there are no shared working experiences although we observe the average team tenure to be 5 years. As a result, I use overlapping tenure instead of average team tenure as the measure for shared experiences. Nevertheless, a robustness check using the average team tenure yields qualitatively similar results.

$$Team_SharedExp = \frac{1}{N} \sum_{i \neq j} \min(u_i, u_j) \quad (1)$$

Where N is the total number of pairs within the TMT and u_i is the tenure of manager i in the TMT, defined as the number of years since manager i was promoted to the level of Vice President or higher. I use the decile ranking of this variable normalized to range between zero and one (*Team_SharedExp10*) in the regression to facilitate interpretation of the coefficients.

Team_Homo is a composite measure of homogeneity in education level, functional background, and firm tenure created to measure overall homogeneity in the experiences of the top managers. Education level is classified into high_school, undergraduate, master, JD, and PhD based on the highest degree obtained. I do not use managers' major fields of education because information on majors is usually missing in BoardEx and one executive can hold several degrees majoring in different subjects. Moreover, the functional background can partially capture the education curriculum since the career path is usually associated with the education curriculum. Functional background is the career track on which the manager spent the most time in the past. It includes (1) general management, (2) finance and accounting, (3) marketing, sales and public relations, (4) research and engineering, (5) production and operations, (6) law, and (7) personnel management (Hambrick et al. 1996). I also include homogeneity in firm tenure (or length of service) because similarity in time of entry is related to cultural similarity and frequency of communication among group members, which in turn affects group integration and cohesiveness (Carroll and Harrison 1998; Wagner et al. 1984). I convert firm tenure into a categorical variable using 10-year increments in years of

service with the firm.⁷ Managers are classified into five categories, based on years of service: (1) less than or equal to 10 years, (2) between 11 to 20 years, (3) between 21 to 30 years, (4) between 31 to 40 years, and (5) more than 40 years.

I use three steps to calculate the composite measure *Team_Homo*. In the first step, I calculate the homogeneity in each of the three dimensions, i.e. education level, functional background, and firm tenure separately using the Blau (1977) index.

Homogeneity in education level is calculated using $\sum_{i=1}^N p_i^2$, where p_i is the proportion of the executives in each of the five degree levels in a given firm year. The highest value of one indicates most homogeneous TMTs as all managers have the same degree levels, and the lowest value of 0.20 indicates the least homogeneity as when there is an equal number of managers in each of the five education levels. Similarly, homogeneity in functional background is calculated by summing the squared value of the proportion of executives in each of the seven career tracks in a given firm year. Homogeneity in firm tenure is calculated by summing the squared value of the proportion of executives in each of the five categories of tenure in a given firm year.

In the second step, I normalize the homogeneity in each of the three dimensions to range from 0 to 1. In the third step, I calculate the composite homogeneity measure (*Team_Homo*) by taking the average of the normalized homogeneity measures in the three dimensions. I use the decile ranking of *Team_Homo*, normalized to range between 0 and 1 (*Team_Homo10*) in the regression to facilitate interpretation of the coefficients.

⁷ In this study, I create a categorical variable using firm tenure. This approach allows me to use the same measure, i.e. the Blau (1977) index to calculate homogeneity in the three separate dimensions which makes the three homogeneity dimensions more comparable and easier to combine. The standard deviation of firm tenure in my sample is about 10 years, so I classify firm tenure based on 10-year increments. In a robustness check, I consider firm tenure as a continuous variable and use the negative value of the standard deviation in firm tenure as the measure for tenure homogeneity. The results are qualitatively similar using this alternative approach.

4.3 Regression Model

I use the logistic model in equation (2) to test H1 and H2. The model relates the indicator variable *Restate* to *Team_Homo10* and *Team_SharedExp10*. The coefficients of interest are β_1 and β_2 . I expect that TMT homogeneity and shared experience are negatively associated with firms' financial reporting quality, which implies a positive β_1 and β_2 .⁸

$$\begin{aligned} \text{Restate} = & \beta_0 + \beta_1 \text{Team_Homo10} + \beta_2 \text{Team_SharedExp10} + \beta_3 \text{Team_Size} \\ & + \text{Firm Characteristics} + \text{Managerial Characteristics} \\ & + \text{Auditor Characteristics} + \text{Corporate Governance} + \text{Year FE} \\ & + \text{Industry FE} + \varepsilon \end{aligned} \quad (2)$$

The model controls for *Team_Size*, which is the number of executives included in the TMT, as well as a wide variety of control variables for firm, manager, and auditor characteristics, and corporate governance structures. Year fixed effects are included in the model. Dummies for the two-digit SIC code industries are used to control for time-invariant industry effects.

The firm characteristic controls include *Size*, *BTM*, *Leverage*, *ROA*, *Std_Ret* and *Firm_Age*. I control for the complexity of the firm using the number of geographic segments (*Geoseg*) and the number of two-digit SIC code industry segments (*Sic2seg*). Since capital market pressure to obtain external debt or equity financing and M&A activities could create incentives for aggressive reporting behavior (DeFond and

⁸ Reverse causality is unlikely in my research setting. Reverse causality would imply that restatements cause higher TMT homogeneity and longer TMT tenure. Restatements are an ex post measure for the financial reporting quality of the firm at year t. Since it often takes several years for the accounting mistakes to be discovered and restated, at year t, restatements are not yet known or announced. TMT characteristics are measured at year t. As a result, it is unlikely that restatement, which is unknown at year t, will affect TMT characteristics at year t.

Jiambalvo 1991; Richardson, Tuna, and Wu 2002; Beasley 1996), I control for whether the firm has net issuance of equity or debt exceeding 10% (*Ext_Finance*), and whether the firm engaged in a merger or acquisition in the current year for which the deal value is more than 10% of the beginning of the year total market value (*M&A*). I also control for the level of religious adherence in the county of the firm's headquarter (*Religion*), because prior studies find that stronger religious social norms are associated with fewer financial reporting irregularities (McGuire et al. 2012; Dyreng, Mayew, and Williams 2012).

Since prior research documents that CEO or CFO equity compensation incentives, gender, tenure, and age are related to restatements or other accounting quality measures such as discretionary accruals (Bergstresser and Philippon 2006; Francis et al., 2014; Barua et al., 2010; Huang et al., 2012; Ali and Zhang 2015), I include *CEO_Incentive*, *CEO_Female*, *New_CEO*, *CEO_Tenure*, *CEO_Age*, *CFO_Incentive*, *CFO_Female*, *New_CFO*, *CFO_Tenure*, and *CFO_Age* to control for these individual managerial characteristics.

In terms of auditor characteristics, prior research reports that Big 4 auditor, auditor tenure, audit or nonaudit fees are associated with earnings quality, although the results are mixed (Kinney, Palmrose, and Scholz 2004; Ferguson, Seow, and Young 2004; Johnson, Khurana, and Reynolds 2002; Chen, Lin, and Lin 2008; Francis, Maydew, and Sparks 1999; Frankel, Johnson, and Nelson 2002). In my sample, since less than 1% of observations are audited by non-Big 4 auditors, I do not control for auditor size. Instead, I include *New_Auditor*, *Auditor_Tenure*, *Audit_Fee*, and *Nonaudit_Fee* to control for differences in auditor characteristics.

Corporate governance structure may also affect financial reporting quality, I control for institutional ownership (*Inst_Per*), firms with a CEO who also serves as chairman of the board (*CEO_Chair*)⁹, percentage of independent directors (*Indep_Per*), and average tenure of audit committee members (*AuditComm_Tenure*) (Agrawal and Chadha 2005; Efendi, Srivastava, and Swanson 2007; Abbott, Parker, and Peters 2004; Larcker, Richardson, and Tuna 2007; Beasley 1996). The detailed definitions of these control variables are provided in Appendix.

⁹ Feng, Ge, Luo, and Shevlin (2011) use *CEO_Chair* as a proxy for CEO power or CEO dominance in the management team. They document that powerful CEOs may pressure the CFO to engage in accounting manipulations. They also use two other measures for CEO power, including CEO pay slice which is the CEO's percentage of aggregate top five executives' total compensation and an indicator variable for whether the CEO is the founder of the firm. Untabulated robustness checks suggest that controlling for the other two proxies for CEO power does not affect my results.

CHAPTER 5

EMPIRICAL RESULTS

In this chapter, I discuss the empirical results. Section 5.1 presents the descriptive statistics for the sample and univariate analysis examining how the frequency of restatements varies with TMT characteristics. Section 5.2 reports the results from the logistic regression of restatements on TMT homogeneity and shared experience.

5.1 Descriptive Statistics and Univariate Analysis

Table 4 provides the descriptive statistics. Panel A of Table 4 presents summary statistics for the variables used in the regression analysis and Panel B reports the correlations among the main variables. 11% of the firm-year observations are restated due to accounting errors. On average, managers have been working together for six years with a standard deviation of three years. The mean of the composite team homogeneity measure is 0.28. Consistent with the hypotheses, *Restate* is positively correlated with *Team_Homo10* and *Team_SharedExp10* (significant at less than 1%).

[Insert Table 4 About Here]

Table 5 shows the frequency of restatements when dividing the sample into four subsamples based on the median value of *Team_SharedExp* and *Team_Homo*. Moving from diverse and short-tenured TMTs to homogeneous and long-tenured TMTs, restatement (*Restate*) increases from 5.75% to 16.39%. If we focus on more

severe restatements only, the impact is more prominent. For example, reporting irregularity (*Restate_Irr*) increases from 0.33% for firms with diverse and short-tenured TMTs to 4.43% for firms with homogeneous and long-tenured TMTs. The univariate analysis shows that financial reporting quality decreases with TMT homogeneity and shared working experience.

[Insert Table 5 About Here]

5.2 Multivariate Results

Table 6 shows the results for the logistic regression of restatements on TMT homogeneity and shared experience. Column 1 reports the results when all restatements are included. TMT homogeneity is positively associated with restatements (significant at less than 1%, two-sided), suggesting that similar TMT backgrounds are associated with reduced financial reporting quality. TMT shared experience is positively associated with restatements (significant at less than 1%, two-sided), indicating a decline in financial reporting quality with the length of time the TMTs work together. In terms of the economic magnitude of the impact, holding the control variables constant, a move from the lowest decile of TMT homogeneity (shared working experience) to the highest decile will increase the odds of restatement by 425% (157%).

Misstatements may be driven by unintentional errors or intentional mistakes. In order to differentiate irregularity from error, I separately regress *Restate_Irr* and *Restate_NonIrr* on TMT characteristics. Columns 2 and 3 report the results of *Restate_Irr* and *Restate_NonIrr*, respectively. TMT shared experience and homogeneity are positively associated with restatements for both reporting irregularity and error. However,

the effect is much stronger for *Restate_Irr* compared with *Restate_NonIrr*. Moving from the lowest decile of TMT homogeneity (shared experience) to the highest decile will increase the odds of reporting irregularity by 2007% (1651%). In contrast, moving from the lowest decile of TMT homogeneity (shared experience) to the highest decile will increase the odds of reporting errors by 233% (97%). Columns 4 and 5 show the regression results of restatements with different effects on the financial reports. TMT shared experience and homogeneity are positively associated with more severe restatements which result in changes in the bottom line earnings or shareholders' equity. The impact on mistakes which do not affect net income or equity is much smaller. Columns 6 and 7 show the regression results of restatements with different reactions from investors. TMT shared experience and homogeneity are more positively associated with restatements with negative announcement returns than restatements with positive announcement returns.

[Insert Table 6 About Here]

Overall, both the univariate and the multivariate analyses provide consistent results. TMTs with longer shared experience and more similar backgrounds are related to a higher frequency of accounting restatements, especially restatements with more severe consequences.

CHAPTER 6

ADDITIONAL ANALYSES

In this chapter, I conduct some additional analyses. Section 6.1 examines how the effect of TMT characteristics on financial reporting quality differs with board compositions. Section 6.2 explores the role of the positions of the top managers. Section 6.3 addresses the concern for endogenous hiring decision made by the CEO. Section 6.4 shows the effect of each homogeneity attribute. Section 6.5 examines the impact of faultlines, which exist when multiple attributes are aligned in the same way. Finally, section 6.6 shows how TMT characteristics affect accrual and real activities management when firms face income-increasing earnings management incentives.

6.1 Board Characteristics

In this section, I examine whether the impact of TMT characteristics on restatements varies with board characteristics. In Table 6, the two variables measuring board characteristics, i.e. percentage of independent board members and average tenure of audit committee members, do not show a significant relationship with restatements. This result is consistent with prior empirical evidence, which shows mixed results concerning the impact of the board on firms' financial reporting quality (Beasley 1996; Abbott et al. 2004; Larcker et al. 2007; Vafeas 2005). However, the composition of the board may affect the relation between TMTs and firms' financial reporting quality.

A higher proportion of independent directors may reduce the misreporting of TMTs with homogeneous background and long shared working experience. Independent directors bring in new perspectives that may attenuate groupthink. Additionally, an independent director is likely to act as a better monitor of managers and hence could more effectively constrain collusion in earnings management or even fraud (Beasley 1996). As a result, I expect that higher board independence will alleviate the adverse impact on reporting quality of having TMTs with homogeneous background and long shared experience.

In terms of audit committee tenure, there are two opposing views. On one hand, there could be a learning curve for the audit committee. As committee members accumulate more firm-specific experience and knowledge, they may be better able to detect problems and exercise more effective monitoring over managers (Beasley 1996). However, longer working relationships with the managers may compromise their independence (Vafeas 2005). Firms with TMTs that have long shared experience and similar backgrounds are at greater risk of groupthink and collusion. The costs from the loss of independence may exceed the benefits from firm-specific knowledge. Audit committee members who have worked with the long-tenured TMTs for a long time may be less effective in identifying and correcting improper financial reporting behavior as they become friends of the managers over time. As a result, I expect that having a long-tenured audit committee will exacerbate the adverse impact on financial reporting quality of having TMTs with homogeneous background and long shared experience.

To test the cross-sectional variations, I estimate the logistic regression in equation (3) using two dummy variables (H and L) to distinguish above median and below median

independent director percentage (or audit committee tenure). The two dummy variables are interacted with each of the regressors other than industry and year fixed effects.

Under this approach, the slope for each regressor will be estimated separately for firms with above median independent director percentage (or audit committee tenure) and firms with below median independent director percentage (or audit committee tenure).

$$\begin{aligned}
 Restate = \sum_{d=L}^H (& \beta_{d,0} + \beta_{d,1} Team_Homo10 + \beta_{d,2} Team_SharedExp10 + \beta_{d,3} Team_Size \\
 & + Firm\ Characteristics + Managerial\ Characteristics \\
 & + Auditor\ Characteristics + Corporate\ Governance) + Year\ FE \\
 & + Industry\ FE + \varepsilon
 \end{aligned} \tag{3}$$

Table 7 reports the estimation results. Columns 1 and 2 report the coefficient estimates for firms with below median and above median percentage of independent directors, respectively. Consistent with the expectation, TMT shared experience and homogeneity are more positively associated with restatements for firms with more independent directors, indicating that having a more independent board helps to alleviate the adverse impact of TMTs with similar backgrounds and long shared experiences. Columns 3 and 4 report the coefficient estimates for firms with below and above median audit committee tenure, respectively. Having long-tenured audit committees increases the adverse impact of TMT shared experience, possibly due to the loss of independence as audit committee members work with the managers for a long time. The coefficient on *Team_Homo10* is larger for firms with above median audit committee tenure than firms with below median audit committee tenure; however, the difference is not statistically significant.

[Insert Table 7 About Here]

6.2 Positions of Top Executives

In the main analysis, I include all the managers disclosed as executive officers in the firm's 10-K. In this section, I examine whether the effects of TMT characteristics on reporting quality vary with the position of the manager. As an outsider, it is difficult to tell whether a manager plays a role in determining the firms' reporting quality or not. Positions such as CFO, controller, and treasurer clearly play an important role in determining financial reporting quality. However, other positions such as divisional or regional heads, VP-Sales, and COO seem more ambiguous. In this analysis, I try to separate the positions that are more directly related to the corporate accounting function from other positions.

Table 8 provides the results of the logistic regression of *Restate* on different members of the TMT. Column 1 shows the results for the entire TMT. Column 2 shows the results for managers who are more directly related to the corporate accounting function, which include CEO, CFO, Chairman, President, Controller, Treasurer, VP-Tax, VP-Internal Audit, General Counsel, and VP-Investor Relations. Column 3 includes all managers except the ones included in Column 2. The coefficient on *Team_Homo10* is positive for both Columns 2 and 3; the magnitude of the coefficient is also similar. It indicates that both the homogeneity within the corporate accounting function and homogeneity among other top managers affect firms' financial reporting quality. The coefficient on *Team_SharedExp10* is only significantly positive in Column 2; the coefficient in Column 3 is positive but not significant. It shows that shared working experience matters most for the managers directly related to the corporate accounting function.

I also try to separate the top tier managers from their subordinates. Column 4 of Table 8 reports the results for the top tier executives only, which include the Chairman, CEO, President, and CFO. Column 5 shows the results for the entire TMT after excluding the top tier executives included in Column 4. Both *Team_Homo10* and *Team_SharedExp10* are positively associated with restatements in Columns 4 and 5, indicating that the documented effect of the TMT is not driven by the top tier executives such as the CEO and CFO only. Other subordinate executives in the TMT also play a role in determining the firms' financial reporting quality.

If we compare the coefficients in Column 1 with those in Columns 2 to 5, we can observe that the coefficients on *Team_Homo10* and *Team_SharedExp10* are the largest in Column 1, when homogeneity and shared experience are calculated using the entire top management team. This result suggests that the entire TMT is a reasonable target group when examining the impact of the top management team on financial reporting quality.

[Insert Table 8 About Here]

6.3 Endogenous Hiring Decisions and CEO Power

CEOs participate in the hiring and firing of other top managers. It is possible that the relation between TMT characteristics and financial reporting quality is driven by the endogenous hiring decisions of the CEO. For example, CEOs attempting to manage earnings may try to hire or promote top managers who share similar values and preferences with them and keep those top managers for a long time. To address this concern, I examine whether the effects of TMT homogeneity and shared experience on

reporting quality differ across TMTs that are primarily hired or promoted by the current CEO or not.

I estimate the following logistic regression in equation (4). *CEO_Hire50Per* is an indicator variable that equals one if more than half of the top managers become Vice President or above after the current CEO takes office, and zero otherwise. The variables of interest are β_4 and β_5 . If the association between TMT characteristics and financial reporting quality is driven by the endogenous hiring decisions of the CEO, we should observe a larger effect for TMTs hired primarily by the CEO and hence a positive coefficient for β_4 and β_5 .

$$\begin{aligned} \text{Restate} = & \beta_0 + \beta_1 \text{Team_Homo10} + \beta_2 \text{Team_SharedExp10} + \beta_3 \text{CEO_Hire50Per} \\ & + \beta_4 \text{Team_Homo10} \times \text{CEO_Hire50Per} + \beta_5 \text{Team_SharedExp10} \times \text{CEO_Hire50Per} \\ & + \beta_6 \text{Team_Size} + \text{Firm Characteristics} + \text{Managerial Characteristics} \\ & + \text{Auditor Characteristics} + \text{Corporate Governance} + \text{Year FE} + \text{Industry FE} + \varepsilon \end{aligned} \quad (4)$$

Column 1 of Table 9 reports the logistic regression results. The coefficients on the interaction terms are not different from zero. The results show that there is no significant difference between the effect of TMTs that are primarily hired by the current CEO and TMTs that are not, indicating that the documented relation between reporting quality and TMT characteristics is unlikely to be driven by CEOs hiring and retaining similar people to satisfy their earnings management incentives.

In Columns 2 and 3, I replace *CEO_Hire50Per* with two other variables that measure CEO power, i.e. *CEO_Payslice* and *CEO_Chair*. *CEO_Payslice* is an indicator variable that equals one if the CEO's compensation as a percentage of the total compensation of the five highest paid employees is above the sample median, and zero

otherwise. *CEO_Chair* is an indicator variable that equals one if the CEO is also the Chairman of the board, and zero otherwise. If the CEO's endogenous hiring decisions are driving the results, the effect should be stronger when the CEO is more powerful within the firm and hence is more able to determine the hiring and firing of other top managers. The results in Columns 2 and 3 of Table 9 show that the interaction terms between the CEO power variables and TMT characteristics are not reliably different from zero, suggesting that the impact of TMT characteristics on reporting quality does not differ across firms with more or less powerful CEOs.

[Insert Table 9 About Here]

6.4 Separate Analyses of Homogeneity Attributes

In the main analysis, team homogeneity is measured using a composite homogeneity measure of three attributes including education level, functional background, and firm tenure. In this section, I repeat the analyses by including the homogeneity measures for each attribute separately. Column 1 to 4 of Table 10 report the logistic regression results for each of the three homogeneity attributes. The results suggest that each of the three attributes is significantly related to firms' financial reporting quality.

In addition, I examine only the effect of job related diversity (also called deep level diversity), which includes diversity in education, functional background, and tenure in the main analysis. There is non-job related diversity (also called surface level diversity) in demographic traits such as age, race, and gender. I focus on job related

diversity because the knowledge and skills of the managers that affect their financial reporting decisions are more likely to be shaped by job related experiences. In addition, job related diversity is shown to increase task related debates that enhance team performance, while non-job related diversity is associated with more emotional conflicts that may not be beneficial to performance (Pelled, Eisenhardt, and Xin 1999; Simmons et al. 1999). As a result, job related diversity is more likely to introduce diverse perspectives and promote healthy debates among the TMTs, which provide the checks and balances in the financial reporting processes. In contrast, non-job related diversity is more prone to the counter arguments that TMT diversity may result in more political activities and power struggles that may motivate some managers to manipulate earnings.

Columns 5 and 6 of Table 10 report the results for gender and age homogeneity¹⁰, respectively. The coefficients are not statistically different from zero, suggesting that non-job related diversity does not significantly relate to firms' financial reporting quality.

[Insert Table 10 About Here]

6.5 Faultlines

Faultlines are “hypothetical dividing lines that may split a group into subgroups based on one or more attributes” and they become stronger when “more attributes align

¹⁰ Similar to the case of tenure homogeneity, age homogeneity is calculated after converting age to a categorical variable with 10-year increments. Managers are divided into four categories with age (1) between 30 and 39, (2) between 40 and 49, (3) between 50 and 59, and (4) 60 and above. Age homogeneity (*Age_Homo*) is calculated using the sum of squared proportion of managers in each of the four age categories. Gender homogeneity (*Gender_Homo*) is calculated using the sum of squared proportion of female and male managers. I use the decile ranking of age and gender homogeneity (*Age_Homo10*, *Gender_Homo10*) normalized to range between 0 and 1 in the regression.

themselves in the same way” (Lau and Murignhan, 1998). The faultline concept takes into account not only the dispersion of attributes among team members but also the pattern of dispersion. Suppose firm A and firm B each has four top executives. The functional background, education level, and firm tenure of each manager are listed in the following table.

	Firm A	Firm B
Manager 1	Accounting, Master, 9 years	Accounting, Bachelor, 31 years
Manager 2	Accounting, Master, 8 years	Accounting, Master, 9 years
Manager 3	Manufacturing, Bachelor, 31 years	Manufacturing, Bachelor, 33 years
Manager 4	Manufacturing, Bachelor, 33 years	Manufacturing, Master, 8 years

Firms A and B will have the same homogeneity measure (Blau’s Index) for each of the three dimensions because we observe the same dispersion in each of the three attributes when viewed in isolation. However, when we take into account the interaction of different attributes, the pattern in firm A is much more likely to elicit social subcategorization and separation within the team compared with the pattern in firm B. There exists a clear dividing line in firm A because we can group the four managers into two subgroups and all the managers within each subgroup have the same characteristics in all the three attributes. And all the managers across the two subgroups have different characteristics in all the three attributes. In contrast, it is much more difficult to draw a clear dividing line for firm B because the pattern of distribution among attributes is more random. Firm A is considered to have stronger faultline strength than firm B.

Strong Faultlines suggest clear distinctions among team members and greater chance of subgroup formations within the team. The homogeneity measures (Blau's Index) used in my analysis mainly capture the variety of managers in education, career tracks, and firm-specific experiences because the maximum diversity is achieved when we observe even spread of managers across all possible categories in each dimension (Harrison and Klein, 2007). In contrast, faultline strength mainly captures separation of managers within the TMT. It is *ex ante* unclear how faultlines will affect financial reporting quality. On one hand, subgroupings and separations may reduce social integration and hence reduce the chance of collusion in intentional earnings management or fraud. On the other hand, strong separations may reduce communications across subgroups, increase conflicts and political activities, and negatively affect team performance (Lau and Murnighan 2005; Li and Hambrick 2005). The lack of healthy communications may weaken internal control effectiveness; heightened political activities and power struggles may create incentives to manage earnings.

In this section, I examine whether faultline strength has an effect on financial reporting quality incremental to team homogeneity measured using Blau (1977) index. I follow the approach in Shaw (2004) to measure faultline strength, which is calculated in three steps: (1) compute internal alignment within subgroups (*IA*); (2) compute external alignment across subgroups (*CGAI*); (3) calculate faultline strength (*FLS*) using $IA \times (1 - CGAI)$. *FLS* reaches the maximum when there is maximum within-subgroup alignment and minimum cross-subgroup alignment.¹¹ I use the decile ranking of faultline strength normalized to the range between 0 and 1 (*Team_FLS10*) in the regression to facilitate

¹¹ Please refer to the Appendix in Shaw (2004) from page 91 to 99 for detailed procedures for calculating the faultline strength measures.

interpretation of the coefficient. I first measure faultline strength using all the five available characteristics including three job related characteristics (education level, functional background, and firm tenure) and two non-job related characteristics (gender and age). Then, I examine faultline strength in job related characteristics and non-job related characteristics separately. I estimate the logistic regression of *Restate* on TMT faultline strength after controlling for TMT homogeneity and shared experience based on equation (5).

$$\begin{aligned} \text{Restate} = & \beta_0 + \beta_1 \text{Team_Homo10} + \beta_2 \text{Team_SharedExp10} + \beta_3 \text{Team_FLS10} \\ & + \beta_4 \text{Team_Size} + \text{Firm Characteristics} + \text{Managerial Characteristics} \\ & + \text{Auditor Characteristics} + \text{Corporate Governance} + \text{Year FE} + \text{Industry FE} + \varepsilon \end{aligned} \quad (5)$$

Column 1 of Table 11 reports the results for decile ranking of faultline strength for all the five characteristics (*Team_FLS_All10*). Columns 2 and 3 report the results for decile ranking of faultline strength for the three job related characteristics (*Team_FLS_Job10*) and two non-job related characteristics (*Team_FLS_NonJob10*), respectively. The coefficients on *Team_FLS_All10* and *Team_FLS_Job10* are statistically indifferent from zero, while the coefficient on *Team_FLS_NonJob10* is positive and significant at less than 10% level. There is some evidence that strong faultlines in gender and age are associated with more accounting mistakes and hence poorer financial reporting quality. Moving from the lowest to the highest decile of faultline strength on age and gender, the odds of restatements will increase by 60%. The results may be driven by increasing emotional conflicts and frictions in group functioning caused by strong distinctions in gender and age, which may reduce communication and internal control

effectiveness and result in group politics and power struggles that incentivize earnings management.

[Insert Table 11 About Here]

6.6 Accrual and Real Earnings Management

In the main analysis, I use restatements as the proxy for financial reporting quality. Restatements have a low Type I error rate, because restating firms unambiguously made GAAP-violating mistakes in their financial statements (Dechow et al. 2010). However, restatements may contain relatively larger Type II error because there could be firms with accounting errors that were not discovered and firms involving in within-GAAP accrual earnings management. In addition, managers may engage in real activities management such as cutting discretionary expenditure and overproducing inventories (Roychowdhury 2006) in order to boost earnings. These real earnings management activities will not result in GAAP violations.

To address this concern, I examine accrual and real earnings management activities when firms face income-increasing earnings management incentives. I identify firms with upward earnings management incentives using (1) firm-years that just meet or beat the analyst consensus forecast by one cent, (2) firm-years that just meet or beat the management forecast by one cent, (3) firm-years that just meet or beat last year's EPS by one cent, and (4) firm-years that just meet or beat the zero benchmark (i.e. actual EPS greater than or equal to 0 but less than 0.5% of stock price). I identify 410 suspect firm-years following this procedure. Then, I examine whether measures for accrual and real

earnings management differ with TMT homogeneity and shared experience for the suspect firms.

I estimate abnormal accruals using the performance matched Jones (1991) model. For each fiscal year and two-digit SIC-code industry, I estimate equation (6). I require at least 15 observations for each regression. Discretionary accrual is the residual from equation (6). Performance matched discretionary accrual (*AEM*) is the estimated discretionary accrual adjusted for the mean discretionary accrual for firms in the same industry year and quintile of *ROA*.

$$Accrual_t = a + b_1 (1/AT_{t-1}) + b_2 Csale_t + b_3 PPE_t + e_t \quad (6)$$

Where *Accrual_t* is the earnings before extraordinary items minus the operating cash flows scaled by lagged total assets; *AT_{t-1}* is the lagged total assets; *Csale_t* is the change in sales from year t-1 to year t scaled by lagged total assets; *PPE_t* is the gross property, plant, and equipment scaled by lagged total assets; *ROA* is income before extraordinary items scaled by lagged total assets.

Real earnings management is measured by the abnormal production costs and abnormal discretionary expenditure, following Roychowdhury (2006). For each fiscal year and two-digit SIC-code industry, I estimate the following equations. I require at least 15 observations for each regression. Real earnings management through overproduction (*REM_PROD*) is the residual from equation (7). Real earnings management through cutting discretionary expenditure (*REM_DISX*) is the residual from equation (8) multiplied by negative one.

$$PROD_t = a + b_1 (1/AT_{t-1}) + b_2 Sale_t + b_3 Csale_t + b_4 Csale_{t-1} + e_t \quad (7)$$

$$DISX_t = a + b_1 (1/AT_{t-1}) + b_2 Sale_{t-1} + e_t \quad (8)$$

Where $PROD_t$ is the sum of the cost of goods sold in year t and the change in inventory from year t-1 to year t scaled by lagged total assets; $Sale_t$ is the total sales in year t scaled by lagged total assets; $Csale_t$ is the change in sales from year t-1 to year t scaled by lagged total assets; $DISX_t$ is the discretionary expenditures which include R&D, advertising and SG&A in year t scaled by lagged total assets.

I regress accrual and real earnings management measures on TMT homogeneity and shared experience for the suspect firms using equation (9). The variables of interest are β_1 and β_2 . Positive coefficients indicate more accrual or real earnings management activities and vice versa.

$$AEM, REM_PROD, \text{ or } REM_DISX = \beta_0 + \beta_1 Team_Homo10 + \beta_2 Team_SharedExp10 + \beta_3 Team_Size + Firm\ Characteristics + Managerial\ Characteristics + Auditor\ Characteristics + Corporate\ Governance + \varepsilon \quad (9)$$

Table 12 shows the results for the OLS regression in equation (9). TMT homogeneity and shared experience are positively associated with both discretionary accruals and real earnings management measures. The results indicate that TMTs with similar backgrounds and long shared experience engage in more upward accrual and real earnings management when they face income-increasing earnings management incentives. Overall, both the restatement and earnings management tests indicate lower financial reporting quality for TMTs with more similar background and longer shared experience.

[Insert Table 12 About Here]

CHAPTER 7

CONCLUSIONS AND LIMITATIONS

Using a sample of 2,658 firm-year observations of S&P 500 firms from 2006 to 2013, this study documents a significant impact of TMT characteristics on firms' financial reporting quality. Results suggest that firms with TMTs that have longer shared working experience and similar background are more likely to have misstatements, and engage in more accrual and real earnings management when facing income-increasing earnings management incentives. Additional analyses suggest that the impact of TMT characteristics varies with board characteristics. Board independence helps to alleviate the adverse impact on firms' financial reporting quality of having TMTs with similar background and long shared experience, while long-tenured audit committees exaggerate such adverse impact.

The results show that team related issues play an important role in managers' financial reporting decisions incremental to individual managerial characteristics. This is a fruitful research area that has been largely overlooked in the accounting literature. Besides that, this study indicates that when we consider the role of the managers and the board, a "one size fits all" approach is likely to be problematic. When the management team works with different boards or works in firms under different environments, the impact could differ significantly.

When interpreting the results from this study, we should exercise some caution. The conclusion is not the superiority of certain TMT, because we only examine the financial reporting aspects of firm decisions. The fact that TMTs with shorter shared working experience and more diverse backgrounds are related to higher financial reporting quality does not mean that they will yield better overall firm performance. For example, homogeneous and long-tenured TMT may be more suitable for firms operating in a stable environment (Keck 1997; Finkelstein, Hambrick, and Cannella 2009). The implication of this study is that TMTs with longer shared experience and homogeneous background raise a red flag for the firms' financial reporting quality. It informs investors, auditors, and regulators that we should be more cautious when viewing the financial statements of these firms as the risk for unintentional errors and intentional mistakes may be higher.

In addition, this study focuses on the conformity with GAAP and earnings management when measuring financial reporting quality. There are other aspects of financial reporting quality such as value relevance and persistence. How TMT characteristics affect other aspects of reporting quality remains to be explored in future studies.

Moreover, who to hire, promote, and retain is determined by the external and internal environment and objectives of the firm. Both the TMTs and the firm environment and objectives will mutually shape the firms' strategies and outcomes (Hambrick and Mason 1984). This dynamic process raises the concern that some omitted firm characteristics may result in both homogenous and long-tenured TMTs and poor financial reporting quality. We can only conclude that TMT characteristics have incremental

explanatory power for financial reporting quality after controlling for the many firm and managerial characteristics documented in the prior literature.

Finally, this study uses a sample of S&P 500 firms. TMTs may play a more important role in the decision-making of these large firms because they are less likely to be controlled by any single individual. As a result, we should exercise some caution when trying to generalize the results of this study to firms that are much smaller in size.

APPENDIX

VARIABLE DEFINITIONS

Variable Name	Definition	Source
<i>Restate</i>	An indicator variable which equals to 1 if 10-Q or 10-K issued by the firm during a fiscal year is misreported and subsequently restated due to accounting mistakes, and 0 otherwise	AuditAnalytics
<i>Restate_Irr</i>	An indicator variable which equals to 1 if <i>Restate</i> equals to 1 and the restatement is identified as fraud in AuditAnalytics or results in SEC or Board Investigation or Class action lawsuits, and 0 otherwise	AuditAnalytics
<i>Restate_BL</i>	An indicator variable which equals to 1 if <i>Restate</i> equals to 1 and the restatement results in changes in the reported net income or shareholders' equity, and 0 otherwise	AuditAnalytics
<i>Restate_Negret</i>	An indicator variable which equals to 1 if <i>Restate</i> equals to 1 and the cumulative abnormal return during the seven-day window (-1, 5) around the restatement announcement date is negative, and 0 otherwise	AuditAnalytics, CRSP
<i>Team_SharedExp</i>	$= \frac{1}{N} \sum_{i \neq j} \min(u_i, u_j)$ where N is the total number of pairs of managers within the TMT and u_i is the number of years manager i was promoted to the level of Vice President or higher in the firm.	BoardEx, 10-K, Company Website
<i>Team_SharedExp10</i>	Decile ranking of <i>Team_SharedExp</i> ranging from 0 to 1	BoardEx, 10-K, Company Website
<i>Educ_Homo</i>	$Educ_Homo = \sum_{i=1}^N p_i^2$ Where p_i is the proportion of executives in one of the five categories based on the managers' highest degree level, i.e. (1) High School, (2) Undergraduate, (3) Master, (4) JD, and (5) PhD. <i>Educ_Homo10</i> is the decile ranking of <i>Educ_Homo</i> normalized to range from 0 to 1.	BoardEx, 10-K, Company Website

<i>Function_Homo</i>	$Function_Homo = \sum_{i=1}^N p_i^2$ <p>Where p_i is the proportion of executives in one of the seven categories based on the managers' past career tracks, i.e. (1) general business, (2) finance and accounting, (3) marketing, sales and public relations, (4) research and engineering, (5) production and operations, (6) legal, (7) human resource management.</p> <p><i>Function_Homo10</i> is the decile ranking of <i>Function_Homo</i> normalized to range from 0 to 1.</p>	BoardEx, 10-K, Company Website
<i>Tenure_Homo</i>	$Tenure_Homo = \sum_{i=1}^N p_i^2$ <p>Where p_i is the proportion of executives in one of the five categories based on the managers' years of service with the firm, i.e. (1) less than or equal to 10 years, (2) between 11 to 20 years, (3) between 21 to 30 years, (4) between 31 to 40 years, and (5) more than 40 years.</p> <p><i>Tenure_Homo10</i> is the decile ranking of <i>Tenure_Homo</i> normalized to range from 0 to 1.</p>	BoardEx, 10-K, Company Website
<i>Team_Homo</i>	The average of the normalized value of <i>Educ_Homo</i> , <i>Function_Homo</i> , and <i>Tenure_Homo</i> .	BoardEx, 10-K, Company Website
<i>Team_Homo10</i>	Decile ranking of <i>Team_Homo</i> ranging from 0 to 1	BoardEx, 10-K, Company Website
<i>Team_Size</i>	The number of managers disclosed as executive officers in a firm's 10-K	10-K, Proxy Statement
<i>Size</i>	Natural log of the market value of equity = $\text{Ln}(\text{PRCC_F} * \text{CSHO})$	Compustat, 10-K
<i>BTM</i>	Book-to-market ratio = $\text{CEQ} / (\text{PRCC_F} * \text{CSHO})$	Compustat, 10-K
<i>Leverage</i>	Total debt divided by total assets = $(\text{DLCC} + \text{DLT}) / \text{AT}$	Compustat, 10-K
<i>ROA</i>	Income before extraordinary items scaled by beginning total assets = $\text{IB}_t / \text{AT}_{t-1}$	Compustat, 10-K
<i>Std_Ret</i>	Standard deviation of monthly stock returns for the last three years	CRSP
<i>Firm_Age</i>	Number of years since the first year that the firm is publicly traded	CRSP
<i>Ext_Finance</i>	An indicator variable which equals to 1 if net debt issuance is more than 10% of the beginning total assets or the increase in common shares outstanding is greater than 10% in the year, and 0 otherwise	Compustat, 10-K

<i>M&A</i>	An indicator variable which equals to 1 if the firm engaged in a merger or acquisition in the current year for which the deal value exceeds 10% of the beginning of the year market value of the firm, and 0 otherwise	SDC
<i>Religion</i>	The fraction of population that are religious adherents in the county of the firm's headquarter	American Religion Data Archive
<i>CEO_Incentive</i>	A share of CEO's total compensation that could come from a one percentage point increase in the stock price of the company defined in Bergstresser and Philippon (2006)	ExecuComp
<i>CFO_Incentive</i>	A share of CFO's total compensation that could come from a one percentage point increase in the stock price of the company defined in Bergstresser and Philippon (2006)	ExecuComp
<i>CEO_Female</i>	An indicator variable which equals to 1 if the CEO is female and 0 otherwise	BoardEx
<i>CFO_Female</i>	An indicator variable which equals to 1 if the CFO is female and 0 otherwise	BoardEx
<i>CEO_Tenure</i>	Number of years the executive served as the CEO of the company	BoardEx
<i>CFO_Tenure</i>	Number of years the executive served as the CFO of the company	BoardEx
<i>New_CEO</i>	An indicator variable which equals to 1 if the tenure of the CEO is less than or equal to two years, and 0 otherwise	BoardEx
<i>New_CFO</i>	An indicator variable which equals to 1 if the tenure of the CFO is less than or equal to two years, and 0 otherwise	BoardEx
<i>CEO_Age</i>	Age of the CEO	BoardEx
<i>CFO_Age</i>	Age of the CFO	BoardEx
<i>New_Auditor</i>	An indicator variable which equals to 1 if auditor tenure is less than or equal to two years and 0 otherwise	AuditAnalytics
<i>Auditor_Tenure</i>	Number of years the audit firm has served as the auditor of the company	AuditAnalytics
<i>Audit_Fee</i>	Natural log of total audit fees	AuditAnalytics
<i>Nonaudit_Fee</i>	Natural log of total nonaudit fees	AuditAnalytics
<i>Inst_Per</i>	The percentage of shares held by institutional shareholders	Thomson 13F
<i>CEO_Chair</i>	An indicator variable which equals to 1 if the CEO also serves as chairman of the board in a given firm-year, and 0 otherwise	BoardEx, 10-K, Company Website
<i>Indep_Per</i>	The percentage of independent board of directors	ISS

<i>AuditComm_Tenure</i>	The average tenure of audit committee members	ISS
<i>Geoseg</i>	The number of geographic segments of the firm	Compustat
<i>Sic2seg</i>	The number of two-digit SIC segments of the firm	Compustat
<i>AEM</i>	Abnormal accruals estimated using modified Jones (1991) model augmented with ROA	Compustat
<i>REM_PROD</i>	Abnormal production costs estimated following Roychowdhury (2006)	Compustat
<i>REM_DISX</i>	Abnormal discretionary expenditures estimated following Roychowdhury (2006) multiplied by negative one	Compustat

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Figure 1 Top Management Team Positions

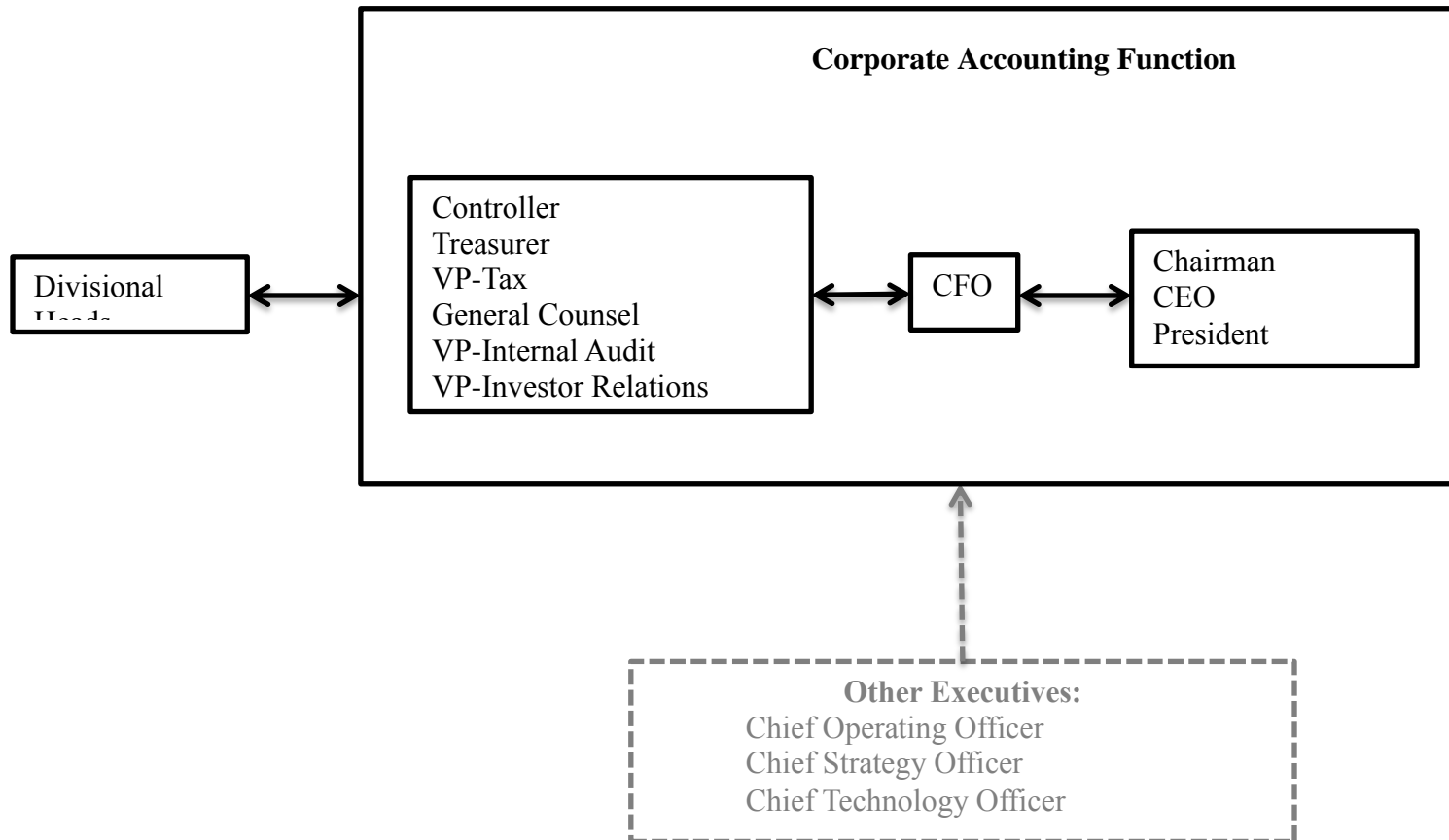


Table 1 Distribution of the Sample**Panel A: Sample Selection**

S&P 500 composite firms at the end of 2013	500
Less financial institutions (SIC Code: 6000 - 6999)	86
Less firms in regulated industries (SIC Code: 4400 - 4999)	63
Less firms with less than three years' financial data	15
Number of firms in the sample	336
Number of firm-year observations in the sample	2658

Panel B: Distribution of Observations by Industry

Two Digit SIC Code	Industry Description	Observations	Percentage
01 - 09	Agriculture, Forestry, And Fishing	8	0.30%
10 - 14	Mining	244	9.18%
15 - 17	Construction	48	1.81%
20 - 39	Manufacturing	1527	57.45%
40 - 43	Transportation	40	1.50%
50 - 51	Wholesale Trade	64	2.41%
52 - 59	Retail Trade	328	12.34%
70 - 89	Services	383	14.41%
99	Other	16	0.60%
	Total	2658	100.00%

Panel C: Distribution of Observations by Year

Year	Observations	Percentage
2006	323	12.15%
2007	328	12.34%
2008	331	12.45%
2009	333	12.53%
2010	335	12.60%
2011	336	12.64%
2012	336	12.64%
2013	336	12.64%
Total	2658	100.00%

Notes:

Table 1 reports information related to sample selection and distribution. Panel A explains the sample selection process. Panel B reports the industry distribution of the sample. Panel C reports the year distribution of the sample.

Table 2 Top Management Team Characteristics

Panel A Frequency of Disclosure by Title

Title	Percentage of Firm-years Disclosing the Position
CEO	100.00%
CFO	100.00%
General Counsel	89.16%
Divisional Head	74.27%
VP-Human Resource	60.35%
Controller	56.47%
COO and VP-Operations	38.41%
VP-Marketing and Sales	33.60%
VP-Strategy and Business Development	29.16%
CTO and VP-Research	27.95%
Treasurer	21.37%
President	19.15%
Chief Information Officer	16.63%
VP-Supply Chain	15.61%
VP-Public Relations and Communications	15.61%
Chairman	11.55%
Vice Chairman	5.76%
VP-Manufacturing	5.53%
VP-Tax	4.51%
VP-Internal Audit	1.88%

Table 2 Continued**Panel B Education Level**

Highest Degree Obtained	Percentage of Observations
High School	0.94%
Bachelor	37.59%
Master	42.37%
JD	13.55%
PhD	5.54%
Total	100.00%

Panel C Functional Background

Career Tracks with the Longest Experience	Percentage of Observations
Finance and Accounting	26.28%
General Management	22.58%
Research and Engineering	14.04%
Law	12.56%
Marketing, Sales, and Public Relations	12.26%
Production and Operations	6.68%
Personnel Management	5.61%
Total	100.00%

Panel D Firm Tenure

Length of Service	Percentage of Observations
Less than or equal to 10 years	43.28%
11 to 20 years	27.21%
21 to 30 years	18.26%
31 to 40 years	10.35%
More than 40 years	0.91%
Total	100.00%

Notes:

Table 2 reports the descriptive statistics for the top management team. Panel A shows the frequency of disclosure for commonly reported positions in the sample firms' 10-K as executive officers. Panel B provides the distribution of managers according to the highest degree obtained. Panel C reports the distribution of managers based on the career track on which the manager spent the most time in the past. Panel D reports the distribution of managers based on the years of service with the firm.

Table 3 Restatement Frequency

Panel A Distribution of Firms by the Frequency of Restatement

Number of Restatements	Observations	Percentage	Number of Restated Firm-years	Observations	Percentage
0	212	63.10%	0	212	63.10%
1	78	23.21%	1	50	14.88%
2	27	8.04%	2	21	6.25%
3	15	4.46%	3	25	7.44%
4	4	1.19%	4	14	4.17%
Total	336	100.00%	5	8	2.38%
			6	4	1.19%
			7	2	0.60%
			Total	336	100.00%

Panel B Restatement Frequency by Reason

Restatement Reason	Observations (Restatements)	Percentage (Restatements)	Observations (Restated firm-years)	Percentage (Restated firm-years)
Revenue Recognition	20	10.36%	43	12.22%
Expense Recognition	20	10.36%	36	10.23%
Asset Recognition	27	13.99%	40	11.36%
Liability Recognition	19	9.84%	50	14.20%
Cash Flow	40	20.73%	60	17.05%
Tax	37	19.17%	77	21.88%
Notes and Other	30	15.54%	46	13.07%
Total	193	100%	352	100%

Panel C Distribution of Restated Firm-years by Year

Year	Frequency of <i>Restate</i>	Frequency of <i>Restate_Irr</i>	Frequency of <i>Restate_BL</i>	Frequency of <i>Restate_Negret</i>
2006	6.81%	4.64%	4.64%	4.02%
2007	6.71%	2.74%	4.88%	3.96%
2008	7.55%	1.81%	4.23%	3.63%
2009	8.71%	2.40%	6.01%	3.30%
2010	11.64%	2.09%	7.16%	5.37%
2011	15.48%	2.68%	7.44%	8.93%
2012	16.96%	2.38%	7.44%	8.04%
2013	16.07%	1.19%	6.55%	8.63%

Notes:

Table 3 reports the descriptive statistics for restatement. Panel A shows the distribution of firms based on the number of restatements (or restated firm-years). Panel B reports the frequency of restatement (or restated firm-years) based on the primary reason of the misstatement. Panel C reports the frequency of restated firm-year observations in each year from 2006 to 2013. See Appendix for definitions of the variables.

Table 4 Descriptive Statistics**Panel A Sample Summary Statistics**

Variable	N	Mean	Std Dev	P10	P25	P50	P75	P90
Restate	2,658	0.11	0.32	0.00	0.00	0.00	0.00	1.00
Restate_Irr	2,658	0.02	0.16	0.00	0.00	0.00	0.00	0.00
Restate_BL	2,658	0.06	0.24	0.00	0.00	0.00	0.00	0.00
Restate_Negret	2,658	0.06	0.23	0.00	0.00	0.00	0.00	0.00
Team_Homo	2,658	0.28	0.10	0.15	0.20	0.26	0.34	0.43
Team_SharedExp	2,658	5.79	2.90	2.75	3.78	5.27	7.16	9.46
Team_Size	2,658	9.72	3.70	6.00	7.00	9.00	12.00	15.00
CEO_Tenure	2,658	7.52	6.74	1.00	3.00	6.00	10.00	15.00
CFO_Tenure	2,658	5.84	5.00	1.00	2.00	5.00	8.00	12.00
CEO_Age	2,658	56.32	6.36	48.00	52.00	56.00	60.00	64.00
CFO_Age	2,658	51.45	5.86	44.00	47.00	51.00	55.00	59.00
CEO_Female	2,658	0.03	0.18	0.00	0.00	0.00	0.00	0.00
CFO_Female	2,658	0.09	0.29	0.00	0.00	0.00	0.00	0.00
CEO_Incentive	2,658	0.28	0.22	0.05	0.12	0.24	0.39	0.57
CFO_Incentive	2,658	0.14	0.12	0.02	0.05	0.10	0.19	0.30
Size	2,658	9.39	1.08	8.13	8.61	9.23	9.98	10.92
BTM	2,658	0.38	0.25	0.12	0.21	0.33	0.51	0.71
Leverage	2,658	0.22	0.15	0.01	0.11	0.20	0.31	0.42
ROA	2,658	0.09	0.08	0.01	0.05	0.08	0.13	0.18
Std_Ret	2,658	0.09	0.04	0.05	0.06	0.08	0.11	0.14
Firm_Age	2,658	35.64	23.49	10.00	17.00	30.00	47.00	79.00
Ext_Finance	2,658	0.15	0.36	0.00	0.00	0.00	0.00	1.00
M&A	2,658	0.05	0.22	0.00	0.00	0.00	0.00	0.00
Religion	2,658	0.51	0.10	0.38	0.44	0.50	0.58	0.63
Auditor_Tenure	2,658	28.46	25.19	6.00	10.00	20.00	40.00	69.00
Audit_Fee	2,658	15.37	0.90	14.21	14.74	15.32	15.93	16.63
Nonaudit_Fee	2,658	13.53	1.65	11.58	12.68	13.72	14.61	15.38
Inst_Per	2,658	0.71	0.28	0.00	0.67	0.80	0.89	0.95
CEO_Chair	2,658	0.59	0.49	0.00	0.00	1.00	1.00	1.00
Indep_Per	2,658	0.81	0.10	0.67	0.75	0.82	0.90	0.91
AuditComm_Tenure	2,658	8.61	3.76	4.67	6.17	8.00	10.33	13.33
Geoseg	2,658	4.10	3.38	1.00	2.00	3.00	5.00	8.00
Sic2seg	2,658	2.34	1.48	1.00	1.00	2.00	3.00	4.00

Table 4 Continued

Panel B Pearson Correlation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Restate	1.00															
(2) Team_Homo10	0.10***	1.00														
(3) Team_SharedExp10	0.05***	-0.13***	1.00													
(4) Team_Size	-0.06***	-0.41***	-0.13***	1.00												
(5) Size	-0.06***	-0.20***	0.07***	0.29***	1.00											
(6) BTM	0.13***	-0.05**	-0.05***	-0.03	-0.20***	1.00										
(7) Leverage	0.03	-0.07***	-0.01	0.08***	-0.10***	-0.04*	1.00									
(8) ROA	-0.09***	-0.02	0.10***	-0.03	0.17***	-0.48***	-0.23***	1.00								
(9) Std_Ret	0.06***	0.18***	-0.06***	-0.22***	-0.35***	0.19***	-0.06***	-0.11***	1.00							
(10) Firm_Age	0.01	-0.27***	0.03	0.31***	0.32***	0.07***	0.15***	-0.10***	-0.22***	1.00						
(11) Inst_Per	-0.00	-0.03***	0.13***	-0.07***	-0.15***	-0.07***	-0.03	0.03	0.04**	-0.07***	1.00					
(12) CEO_Chair	0.00	-0.12***	0.11***	0.08***	0.13***	-0.03	0.09***	0.02	-0.10***	0.20***	-0.07***	1.00				
(13) Indep_Per	0.01	-0.08***	-0.08***	0.14***	0.12***	0.04*	0.13***	-0.10***	-0.03	0.25***	0.07***	0.22***	1.00			
(14) AuditComm_Tenure	-0.01	-0.05**	0.22***	-0.03	0.03	-0.06**	-0.03	0.08***	-0.01	0.09***	0.08***	-0.00	-0.14***	1.00		
(15) Geoseg	-0.02	-0.03*	-0.10***	0.07***	0.12***	0.13***	-0.10***	0.01	0.10***	0.12***	-0.13***	-0.00	0.11***	0.01	1.00	
(16) Sic2seg	0.08***	-0.06**	0.08***	0.04*	0.20***	0.14***	0.12***	-0.14***	-0.07***	0.33***	-0.15***	0.17***	0.09***	0.02	0.08***	1.00

Notes:

Table 4 reports the descriptive statistics for main regression variables. Panel A provides summary statistics for the sample. Panel B reports Pearson correlation matrix for the main variables. See Appendix for definitions of the variables. ***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 5 Univariate Analysis**Panel A Frequency of *Restate* by TMT Characteristics**

	Team_SharedExp < Sample Median	Team_SharedExp > Sample Median
Team_Homo < Sample Median	5.75%	10.15%
Team_Homo > Sample Median	12.78%	16.39%

Panel B Frequency of *Restate_Irr* by TMT Characteristics

	Team_SharedExp < Sample Median	Team_SharedExp > Sample Median
Team_Homo < Sample Median	0.33%	1.53%
Team_Homo > Sample Median	3.61%	4.43%

Panel C Frequency of *Restate_BL* by TMT Characteristics

	Team_SharedExp < Sample Median	Team_SharedExp > Sample Median
Team_Homo < Sample Median	1.97%	5.70%
Team_Homo > Sample Median	7.50%	8.85%

Panel D Frequency of *Restate_Negret* by TMT Characteristics

	Team_SharedExp < Sample Median	Team_SharedExp > Sample Median
Team_Homo < Sample Median	2.13%	4.59%
Team_Homo > Sample Median	6.39%	10.00%

Notes:

Table 5 reports the univariate analysis. Panel A shows the frequency of restatement (*Restate*) for four subsamples partitioned by the median values of shared experience and team homogeneity. Panel B, C, and D report the results for *Restate_Irr*, *Restate_BL*, and *Restate_Negret*, respectively. *Restate_Irr* represents restatement that is identified as fraud or results in SEC or Board Investigation or Class action lawsuits. *Restate_BL* refers to restatement leading to changes in the reported net income or shareholders' equity. *Restate_Negret* is restatement with negative announcement returns. See Appendix for definitions of the variables.

Table 6 Restatements and Top Management Team Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Restate	Restate_Irr	Restate_NonIrr	Restate_BL	Restate_NonBL	Restate_Negret	Restate_Posret
Team_Homo10	1.6575*** (4.35)	3.0479*** (3.61)	1.2029*** (2.91)	2.5633*** (5.13)	1.0002* (1.91)	2.0713*** (3.53)	1.3287*** (2.97)
Team_SharedExp10	0.9457*** (2.77)	2.8042*** (4.04)	0.6791* (1.82)	1.2513*** (2.66)	0.8368* (1.81)	1.2565*** (2.60)	0.5772 (1.25)
Team_Size	-0.0183 (-0.57)	-0.0284 (-0.35)	-0.0370 (-1.07)	-0.0504 (-1.05)	0.0136 (0.38)	0.0057 (0.11)	-0.0175 (-0.50)
New_CEO	0.3630* (1.78)	-0.1826 (-0.37)	0.5548** (2.53)	0.4303 (1.53)	0.4865* (1.74)	0.4253 (1.49)	0.3785 (1.36)
New_CFO	0.3706 (1.51)	-0.3939 (-0.76)	0.5968** (2.26)	-0.1255 (-0.39)	0.6923** (2.21)	0.2438 (0.72)	0.6232** (2.04)
CEO_Tenure	0.0030 (0.13)	-0.0628 (-1.39)	0.0170 (0.70)	0.0474 (1.39)	-0.0126 (-0.40)	0.0148 (0.49)	0.0039 (0.12)
CFO_Tenure	-0.0253 (-0.76)	-0.1576* (-1.96)	-0.0017 (-0.05)	-0.1406*** (-2.68)	0.0356 (1.02)	-0.0035 (-0.08)	-0.0295 (-0.64)
CEO_Age	-0.0185 (-0.93)	-0.0259 (-0.67)	-0.0124 (-0.56)	-0.0229 (-0.81)	-0.0175 (-0.66)	-0.0442* (-1.84)	0.0031 (0.11)
CFO_Age	-0.0021 (-0.09)	-0.0891 (-1.32)	0.0207 (0.82)	-0.0149 (-0.38)	0.0129 (0.37)	-0.0687** (-2.00)	0.0529 (1.63)
CEO_Female	0.0741 (0.13)	N/A	0.3577 (0.65)	-0.3969 (-0.53)	0.1036 (0.17)	0.1551 (0.17)	-0.2784 (-0.45)
CFO_Female	-1.4167*** (-3.12)	-0.4814 (-0.50)	-1.8904*** (-3.30)	-1.3173* (-1.78)	-1.2664** (-2.30)	-0.7139 (-1.29)	-2.2768*** (-2.83)
CEO_Incentive	0.1967 (0.35)	0.7706 (0.75)	0.2602 (0.40)	-1.3607 (-1.58)	1.2791* (1.65)	0.0326 (0.05)	0.3694 (0.42)
CFO_Incentive	0.5245 (0.48)	-0.6584 (-0.26)	0.4755 (0.39)	0.0161 (0.01)	0.8637 (0.64)	0.4297 (0.29)	0.6922 (0.49)
Size	-0.0461 (-0.22)	-0.1572 (-0.45)	-0.0214 (-0.09)	0.4213 (1.61)	-0.5771** (-2.22)	-0.3946 (-1.27)	0.1091 (0.41)
BTM	1.3182** (2.38)	3.8508*** (3.61)	0.7391 (1.18)	2.0792*** (2.95)	0.2927 (0.43)	1.8081*** (2.69)	1.1169 (1.57)
Leverage	0.4112 (0.48)	3.0048* (1.94)	-0.6226 (-0.62)	0.4796 (0.35)	-0.3349 (-0.31)	1.3035 (1.18)	-0.4107 (-0.34)
ROA	-1.3697 (-1.20)	-1.9012 (-0.61)	-1.8488 (-1.53)	-1.8579 (-1.36)	-1.2592 (-0.73)	-1.3402 (-0.81)	-1.3826 (-0.77)
Std_Ret	1.6891 (0.52)	-1.1417 (-0.19)	4.0389 (1.11)	-2.1970 (-0.44)	5.8386 (1.45)	4.4900 (0.97)	-1.8679 (-0.44)
Firm_Age	-0.0070 (-0.89)	-0.0057 (-0.51)	-0.0060 (-0.61)	-0.0215 (-1.50)	0.0036 (0.44)	-0.0043 (-0.47)	-0.0091 (-0.71)
Ext_Finance	-0.2735 (-1.20)	-0.2040 (-0.43)	-0.3165 (-1.20)	-0.3745 (-1.17)	-0.2541 (-0.79)	0.0057 (0.02)	-0.6228 (-1.54)

Table 6 Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Restate	Restate_Irr	Restate_NonIrr	Restate_BL	Restate_NonBL	Restate_Negret	Restate_Posret
M&A	0.8773*** (3.07)	0.3459 (0.40)	1.0397*** (3.32)	1.0969*** (3.04)	0.7501* (1.84)	1.1890*** (3.67)	0.4754 (0.96)
Religion	-1.1655 (-0.86)	2.7302 (0.92)	-2.5860* (-1.70)	1.1000 (0.56)	-2.9496 (-1.53)	-1.1417 (-0.60)	-1.6243 (-0.91)
New_Auditor	0.8815* (1.72)	1.8354 (1.52)	1.0876** (2.22)	-0.2609 (-0.33)	1.7820*** (2.81)	0.7169 (1.03)	1.2660* (1.69)
Auditor_Tenure	0.0015 (0.25)	-0.0208 (-1.25)	0.0060 (0.90)	0.0034 (0.32)	0.0058 (1.01)	0.0089 (1.18)	-0.0015 (-0.18)
Audit_Fee	-0.0872 (-0.37)	-0.0307 (-0.07)	-0.0068 (-0.02)	-0.3729 (-1.14)	0.2604 (0.87)	-0.2785 (-0.89)	0.0513 (0.15)
Nonaudit_Fee	0.1033 (1.27)	0.0725 (0.42)	0.0950 (1.08)	0.2133* (1.74)	0.0189 (0.18)	0.1067 (1.03)	0.1013 (0.85)
Inst_Per	-0.0448 (-0.12)	-0.1259 (-0.19)	0.0937 (0.19)	-0.2784 (-0.51)	0.4121 (0.76)	0.2906 (0.58)	-0.1704 (-0.31)
CEO_Chair	0.1048 (0.44)	1.0611** (2.10)	-0.1070 (-0.42)	0.0196 (0.05)	0.1771 (0.59)	0.0933 (0.27)	0.2177 (0.77)
Indep_Per	0.1864 (0.17)	-0.4311 (-0.20)	0.1822 (0.15)	1.2261 (0.77)	-0.9394 (-0.66)	-0.6527 (-0.40)	0.6863 (0.47)
AuditComm_Tenure	-0.0496 (-0.45)	-0.4475 (-1.58)	-0.0285 (-0.25)	-0.0156 (-0.09)	-0.0836 (-0.62)	-0.0819 (-0.61)	-0.0759 (-0.46)
Geoseg	-0.0279 (-0.81)	-0.0101 (-0.16)	-0.0350 (-0.99)	-0.1612** (-2.43)	0.0268 (0.93)	-0.0327 (-0.74)	-0.0093 (-0.22)
Sic2seg	0.2470*** (2.65)	0.2566* (1.68)	0.2095** (2.18)	0.3281** (2.41)	0.1753* (1.70)	0.2630** (2.02)	0.2367** (2.02)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,434	1,384	2,293	2,101	2,161	2,223	2,027
Pseudo R-Square	0.160	0.370	0.192	0.256	0.176	0.245	0.171

Notes:

Table 6 presents estimation results for the logistic regression of restatements on TMT characteristics. Column (1) reports the results for *Restate*, which includes all restatements. Column (2) reports the results for reporting irregularities (*Restate_Irr*), which include restatements that are identified as fraud or result in SEC or Board Investigation or Class action lawsuits. Column (3) reports the results for reporting errors (*Restate_NonIrr*), which include restatements that are not reporting irregularities. Column (4) reports the results for *Restate_BL*, which refers to restatements resulting in changes in the reported net income or shareholders' equity. Column (5) reports the results for *Restate_NonBL*, which refers to restatements that do not result in changes in the reported net income or shareholders' equity. Column (6) provides results for *Restate_Negret*, which includes restatements with negative announcement stock returns. Column (7) provides results for *Restate_Posret*, which includes restatements with positive announcement stock returns. All the models include year and industry fixed effects. The numbers in parentheses represent robust z-statistics calculated using standard errors clustered by firm. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 7 Board Characteristics

	(1) Indep_Per <Median	(2) Indep_Per >Median	(3) AuditComm_Ten <Median	(4) AuditComm_Ten >Median
Team_Homo10	2.4207*** (4.05)	1.3462*** (2.65)	1.5695*** (3.42)	1.6928*** (3.23)
Team_SharedExp10	1.9409*** (3.68)	0.3375 (0.74)	0.6859 (1.58)	1.3131*** (2.71)
Team_Size	0.0215 (0.40)	-0.0275 (-0.75)	-0.0492 (-1.14)	0.0201 (0.47)
New_CEO	-0.1254 (-0.38)	0.4780* (1.75)	0.3126 (1.15)	0.4584 (1.47)
New_CFO	0.7210** (2.12)	0.2063 (0.61)	0.9330*** (3.03)	-0.1420 (-0.40)
CEO_Tenure	0.0034 (0.11)	-0.0007 (-0.02)	0.0019 (0.06)	-0.0215 (-0.67)
CFO_Tenure	-0.0372 (-0.90)	-0.0131 (-0.25)	0.0617 (1.47)	-0.0932** (-2.05)
CEO_Age	-0.0392 (-1.49)	-0.0164 (-0.56)	-0.0125 (-0.51)	-0.0066 (-0.23)
CFO_Age	-0.0371 (-1.17)	0.0194 (0.63)	-0.0004 (-0.01)	-0.0113 (-0.34)
CEO_Female	-0.9044 (-0.89)	0.2519 (0.44)	0.2502 (0.37)	-0.1572 (-0.15)
CFO_Female	-2.9321* (-1.93)	-0.9125** (-2.42)	-1.7843*** (-2.73)	-1.0196* (-1.73)
CEO_Incentive	-0.1581 (-0.20)	0.3155 (0.37)	-0.3125 (-0.44)	0.7029 (0.82)
CFO_Incentive	2.3312 (1.53)	-0.7124 (-0.52)	0.4931 (0.37)	0.6311 (0.39)
Size	-0.0435 (-0.14)	-0.0504 (-0.24)	0.0445 (0.21)	-0.2920 (-1.16)
BTM	2.0991*** (2.98)	0.7417 (1.13)	1.3823** (2.24)	0.7105 (0.87)
Leverage	-0.6848 (-0.59)	1.4710 (1.27)	0.4596 (0.45)	-0.1677 (-0.16)
ROA	-0.5585 (-0.34)	-3.2446** (-2.10)	-1.2932 (-0.77)	-1.5787 (-0.92)
Std_Ret	8.1935* (1.90)	-1.4738 (-0.37)	0.5984 (0.16)	3.2802 (0.84)
Firm_Age	-0.0043 (-0.42)	-0.0126 (-1.33)	-0.0047 (-0.45)	-0.0110 (-1.06)
Ext_Finance	0.3420 (0.97)	-0.6730** (-2.33)	0.0629 (0.24)	-0.6723 (-1.61)
M&A	0.6108 (1.39)	0.9436** (2.20)	0.5601 (1.29)	1.3548*** (3.25)
Religion	-0.4348 (-0.20)	-1.2024 (-0.75)	-0.9107 (-0.52)	-1.0023 (-0.55)
New_Auditor	0.4493 (0.57)	1.1981 (1.59)	0.1987 (0.33)	2.0329*** (2.58)
Auditor_Tenure	0.0075 (0.94)	-0.0013 (-0.17)	-0.0027 (-0.35)	0.0043 (0.61)

Table 7 Continued

	(1) Indep_Per <Median	(2) Indep_Per >Median	(3) AuditComm_Ten <Median	(4) AuditComm_Ten >Median
Audit_Fee	-0.0227 (-0.07)	-0.0186 (-0.06)	-0.0880 (-0.31)	0.1744 (0.52)
Nonaudit_Fee	0.0396 (0.41)	0.1968 (1.57)	0.0844 (0.69)	0.0534 (0.47)
Inst_Per	0.1896 (0.33)	-0.0964 (-0.19)	0.1588 (0.35)	-0.5888 (-1.07)
CEO_Chair	0.1974 (0.53)	-0.0044 (-0.02)	-0.0369 (-0.14)	0.2937 (0.90)
Geoseg	-0.0913 (-1.41)	-0.0161 (-0.48)	0.0078 (0.17)	-0.0845 (-1.63)
Sic2seg	0.3393*** (2.93)	0.1928* (1.67)	0.1624 (1.40)	0.3502*** (3.16)
Year FE	Yes		Yes	
Industry FE	Yes		Yes	
Observations	2,434		2,434	
Pseudo R-Square	0.192		0.182	
Difference in Team_Homo10	1.0745* [0.0744]		-0.1233 [0.4186]	
Difference in Team_SharedExp10	1.6034** [0.0110]		-0.6272* [0.0945]	

Notes:

Table 7 presents estimation results for the logistic regression of restatements on TMT characteristics for different subsamples partitioned by board characteristics. Column (1) and (2) report the results for the two subsamples partitioned by the median value of independent director percentage. Column (3) and (4) report the results for the two subsamples partitioned by the median value of average audit committee tenure. All the models include year and industry fixed effects. The numbers in parentheses represent robust z-statistics calculated using standard errors clustered by firm. The numbers in brackets represent p-values. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 8 Top Managers with Different Positions

	(1) TMT	(2) TMT_Fin	(3) TMT_NonFin	(4) TMT_Top	(5) TMT_Subordinate
Team_Homo10	1.6575*** (4.35)	0.9047*** (3.66)	0.9683*** (3.30)	0.6780*** (2.83)	0.9787*** (3.41)
Team_SharedExp10	0.9457*** (2.77)	0.8289*** (2.94)	0.3424 (1.45)	0.5812* (1.88)	0.5041** (2.11)
Controls	Included	Included	Included	Included	Included
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Observations	2,434	2,434	2,263	2,434	2,384
Pseudo R-Square	0.160	0.146	0.155	0.141	0.148

Notes:

Table 8 presents estimation results for the logistic regression of restatements on TMT characteristics for different members of the TMT. Column (1) reports the results for the entire top management team. Column (2) reports the results for the top managers who are seemingly more closely related to the financial reporting process including CEO, CFO, Chairman, President, Controller, Treasurer, VP-Tax, VP-Internal Audit, General Counsel, and VP-Investor Relations. Column (3) reports the results for all the managers except the ones included in Column (2). Column (4) reports the results for the top tier executives that include the Chairman, CEO, President, and CFO. Column (5) reports the results for the entire top management team except for the top tier executives included in Column (4). All the models include year and industry fixed effects. Control variables are the same as those included in Table 6. The numbers in parentheses represent robust z-statistics calculated using standard errors clustered by firm. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 9 Endogenous Hiring Decisions and CEO Power

	(1) Restate	(2) Restate	(3) Restate
Team_Homo10	1.8420*** (4.17)	1.7598*** (3.80)	1.6147*** (3.11)
Team_SharedExp10	0.9653** (2.34)	1.2414*** (2.98)	0.8414* (1.73)
CEO_Hire50Per	0.4402 (0.77)		
Team_Homo10 × CEO_Hire50Per	-0.6204 (-0.95)		
Team_SharedExp10 × CEO_Hire50Per	0.2273 (0.38)		
CEO_Payslice		0.4196 (0.92)	
Team_Homo10 × CEO_Payslice		-0.2176 (-0.42)	
Team_SharedExp10 × CEO_Payslice		-0.6676 (-1.35)	
CEO_Chair			-0.0326 (-0.06)
Team_Homo10 × CEO_Chair			0.0730 (0.12)
Team_SharedExp10 × CEO_Chair			0.1896 (0.31)
Controls	Included	Included	Included
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Observations	2,434	2,424	2,434
Pseudo R-Square	0.161	0.161	0.160

Notes:

Table 9 presents estimation results for the logistic regression of restatements on TMT characteristics and interaction terms of TMT characteristics and variables measuring CEO power. *CEO_Hire50Per* is an indicator variable which equals to one if more than half of the top managers become Vice President of above after the current CEO takes office, and zero otherwise. *CEO_Payslice* is an indicator variable which equals to one if the CEO's compensation as a percentage of the total compensation of the five highest paid employees is above the sample median, and zero otherwise. *CEO_Chair* is an indicator variable which equals to one if the CEO is also the Chairman of the board, and zero otherwise. All the models include year and industry fixed effects. Control variables are the same as those included in Table 6. The numbers in parentheses represent robust z-statistics calculated using standard errors clustered by firm. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 10 Separate Analyses of Homogeneity Attributes

	(1) Restate	(2) Restate	(3) Restate	(4) Restate	(5) Restate	(6) Restate
Educ_Homo10	0.8947*** (3.84)			0.9218*** (3.88)		
Function_Homo10		0.5289** (2.22)		0.4697* (1.91)		
Tenure_Homo10			0.9052*** (3.31)	0.9815*** (3.62)		
Gender_Homo10					0.2370 (1.02)	
Age_Homo10						0.2695 (1.15)
Team_SharedExp10	0.5996** (2.31)	0.5946** (2.30)	0.9354*** (3.45)	0.8702*** (3.21)	0.6279** (2.43)	0.6356** (2.46)
Controls	Included	Included	Included	Included	Included	Included
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,434	2,434	2,434	2,434	2,434	2,434
Pseudo R-Square	0.147	0.141	0.145	0.156	0.139	0.140

Notes:

Table 10 presents estimation results for the logistic regression of restatements on shared TMT experiences (*Team_SharedExp10*) and TMT homogeneity in education (*Educ_Homo10*), functional background (*Function_Homo10*), firm tenure (*Tenure_Homo10*), gender (*Gender_Homo10*), and age (*Age_Homo10*). All models include year and industry fixed effects. Control variables are the same as those included in Table 6. The numbers in parentheses represent robust z-statistics calculated using standard errors clustered by firm. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 11 Faultline Strength

	(1) Restate	(2) Restate	(3) Restate
Team_Homo10	1.6267*** (4.26)	1.7090*** (4.44)	1.6902*** (4.50)
Team_SharedExp10	0.9097*** (2.67)	1.0019*** (2.88)	0.9235*** (2.68)
Team_FLS_All10	0.2908 (1.02)		
Team_FLS_Job10		-0.4656 (-1.52)	
Team_FLS_NonJob10			0.4728* (1.82)
Controls	Included	Included	Included
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Observations	2,434	2,434	2,434
Pseudo R-Square	0.161	0.162	0.162

Notes:

Table 11 presents estimation results for the logistic regression of restatements on TMT faultline strength. Faultline strength is measured following the procedures described in Shaw (2004). Column (1) reports the results when faultline strength is measured using five characteristics including education level, functional background, firm tenure, gender, and age. Column (2) shows the results when faultline strength is measured using three job related characteristics including education level, functional background, and firm tenure. Column (3) shows the results when faultline strength is measured using the two non-job related characteristics including gender and age. All models include year and industry fixed effects. Control variables are the same as those included in Table 6. The numbers in parentheses represent robust z-statistics calculated using standard errors clustered by firm. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.

Table 12 Earnings Management and Top Management Team Characteristics

	(1) AEM	(2) REM_PROD	(3) REM_DISX
Constant	0.0584 (0.93)	-0.1403 (-0.80)	-0.2790 (-1.32)
Team_Homo10	0.0147* (1.77)	0.0817*** (3.55)	0.0820*** (2.70)
Team_SharedExp10	0.0189** (2.05)	0.1128*** (4.61)	0.0675** (2.33)
Team_Size	0.0002 (0.31)	0.0032 (1.47)	-0.0011 (-0.44)
New_CEO	0.0018 (0.27)	-0.0243 (-1.17)	-0.0159 (-0.62)
New_CFO	0.0159** (2.48)	-0.0090 (-0.47)	0.0081 (0.35)
CEO_Tenure	-0.0005 (-0.64)	0.0008 (0.44)	0.0015 (0.70)
CFO_Tenure	0.0001 (0.13)	-0.0008 (-0.32)	0.0009 (0.32)
CEO_Age	0.0001 (0.31)	-0.0000 (-0.00)	0.0006 (0.39)
CFO_Age	-0.0005 (-1.04)	-0.0012 (-0.87)	-0.0010 (-0.59)
CEO_Female	0.0072 (0.77)	0.0081 (0.24)	-0.0051 (-0.12)
CFO_Female	-0.0181* (-1.75)	-0.0054 (-0.19)	0.0203 (0.54)
CEO_Incentive	-0.0258 (-1.60)	-0.0622 (-1.34)	-0.0509 (-0.93)
CFO_Incentive	0.0226 (0.92)	-0.0362 (-0.43)	-0.0933 (-0.91)
Size	-0.0028 (-0.79)	-0.0074 (-0.67)	0.0172 (1.28)
BTM	0.0496*** (3.39)	0.1556*** (3.84)	0.2595*** (4.86)
Leverage	0.0330* (1.83)	-0.0143 (-0.28)	0.1118* (1.68)
ROA	0.1186** (1.98)	-0.5160*** (-3.68)	0.1449 (0.78)
Std_Ret	-0.0149 (-0.18)	0.0055 (0.02)	-0.8863*** (-2.88)
Firm_Age	0.0002 (1.33)	-0.0001 (-0.14)	-0.0011** (-2.39)
Ext_Finance	0.0036 (0.43)	0.0139 (0.71)	-0.0322 (-1.43)
M&A	-0.0181 (-1.23)	0.0081 (0.22)	0.0308 (0.69)
Religion	0.0458 (1.65)	-0.0051 (-0.07)	0.1293 (1.41)
New_Auditor	0.0530*** (3.59)	0.1340*** (2.74)	0.1249*** (3.32)
Auditor_Tenure	0.0004*** (3.19)	0.0005 (1.61)	0.0005 (1.20)

Table 12 Continued

	(1) AEM	(2) REM_PROD	(3) REM_DISX
Audit_Fee	-0.0111** (-2.33)	-0.0173 (-1.12)	-0.0233 (-1.25)
Nonaudit_Fee	0.0024 (1.18)	0.0146** (2.28)	0.0082 (1.10)
Inst_Per	-0.0085 (-0.91)	-0.0292 (-1.27)	-0.0422 (-1.57)
CEO_Chair	-0.0041 (-0.68)	-0.0205 (-1.30)	-0.0017 (-0.08)
Indep_Per	0.0233 (0.73)	0.2404*** (2.87)	0.3038*** (2.84)
AuditComm_Tenure	-0.0030 (-1.21)	0.0036 (0.55)	0.0126 (1.59)
Geoseg	-0.0006 (-0.67)	-0.0053* (-1.83)	0.0017 (0.54)
Sic2seg	0.0018 (0.89)	0.0245*** (4.38)	0.0262*** (3.79)
Observations	410	410	410
R-Square	0.2229	0.3293	0.2447

Notes:

Table 12 presents estimation results for the OLS regression of accrual or real earnings management on TMT characteristics when the firm faces income-increasing earnings management incentives. Income-increasing earnings management incentives are identified by firms with earnings just meeting or beating the analyst consensus forecast, management forecast, performance in the last year, or the zero benchmark. Abnormal accruals are estimated using performance matched Jones model (Kothari et al. 2005). Real earnings management from overproduction (*RM_PROD*) or from cutting discretionary expenditures (*RM_DISX*) is estimated following Roychowdhury (2006). The numbers in parentheses represent robust t-statistics. See Appendix for definitions of the variables.

***, **, and * denote significance (two-tailed) at the 0.01, 0.05, and 0.10 levels, respectively.